



OUR PROJECT:

ARTECH SYSTEMS



GALLERY ADMINISTRATION AND BOOKING SYSTEM



MEET OUR TEAM



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PROJECT PROPOSAL



This Document is our project proposal (deliverable 1) document. The document contains our client information, a description of the system our client wants us to develop, a preliminary investigation into the system as well as any problems we might encounter, a requirement analysis, a presentation to our client on the proposed system and all documentation concerning this deliverable.

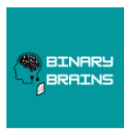
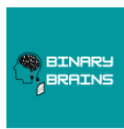


Table of Contents

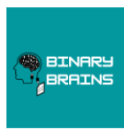
1. Document Introduction	9
2. Client information	10
Introduction	10
2.1 Description of the Organizations History and Background.....	10
2.2 Description of the Organization.....	10
2.3 Organizational Structure	12
2.4 Area of Business.....	13
2.5 Business Environment.....	13
2.6 Contact Person.....	14
2.6.1 Contact Person Particulars:.....	14
Conclusion.....	14
3. Project Request.....	15
Introduction	15
3.1 Project Request.....	15
Conclusion.....	16
4. Preliminary Investigation	17
Introduction	17
4.1 Problem/Vision Statement	17
4.1.1 Problem 1	17
4.1.2 Problem 2	18
4.1.3 Problem 3	19
4.2 Business Goals and Objectives (SMART)	20
4.3 Problems, Opportunities and Directives.....	20
4.3.1 Detailed, problems, Opportunities and Directives Matrix.....	20
4.4 Preliminary Assumptions and Constraints.....	23
4.4.1 Assumptions.....	23
4.4.2 Constraints	23
4.5 Elicitation Techniques	24
4.6 Motivations	24
4.7 Detailed proof for Elicitation Techniques	25
4.7.1 Elicitation Technique: Brainstorming.....	25



4.7.2 Elicitation Technique: Interviews.....	27
4.8 Proof of Elicitation techniques tasks performed before, during and after.....	29
4.8.1 Interviews.....	29
4.8.1.1 Proof of Preparation Tasks: Before Interviews	29
4.8.1.2 Proof of Preparation Tasks: During Interviews	29
4.8.1.3 Proof of Preparation Tasks: After Interviews.....	29
4.8.2 Brainstorming.....	33
4.8.2.1 Proof of Preparation Tasks: Before Brainstorming	33
Proof of Preparation Tasks: During Brainstorming	33
Proof of Preparation Tasks: After Brainstorming.....	34
Conclusion.....	37
5. Problem Analysis.....	37
Introduction	37
5.1 Overview of Current system: Rich Picture	38
5.2 Analyzing the current system capabilities & recommendations	40
5.3 Overview of Proposed system: Rich Picture	42
Conclusion.....	45
6. Requirement Analysis	45
Introduction	45
6.1 Functional Requirements:.....	45
6.1.1 Admin subsystem	46
6.1.1.1 Approve exhibition user.....	46
6.1.1.2 Search exhibition User	46
6.1.1.3 Delete exhibition user	46
6.1.1.4 Create new Exhibition	46
6.1.1.5 Search Exhibition.....	46
6.1.1.6 Update Exhibition	46
6.1.1.7 Delete Exhibition.....	46
6.1.1.8 Add Exhibition Artwork After exhibition.....	46
6.1.1.9 Search Exhibition Artwork After Exhibition	46
6.1.1.10 Delete Exhibition Artwork After Exhibition.....	46
6.1.1.11 Update Exhibition Artwork After Exhibition	46
6.1.1.12 Create Artist exhibition Invitation	46
6.1.1.13 Update Tag.....	46
6.1.1.14 Print Tag	46



6.1.1.15 Manage Classes.....	46
6.1.1.16 Create Class.....	46
6.1.1.17 Search Class.....	46
6.1.1.18 Update Class.....	46
6.1.1.19 Delete Class.....	46
6.1.1.20 Create Class Reminder	46
6.1.1.21 Update Class Reminder	46
6.1.1.22 Delete Class Reminder	46
6.1.1.23 Generate payment Reminder	46
6.1.1.24 Add Class Teacher	46
6.1.1.25 Search Class Teacher.....	46
6.1.1.26 Update Class Teacher.....	46
6.1.1.27 Delete Class Teacher	46
6.1.1.28 Approve Booking.....	46
6.1.1.29 Search Booking.....	46
6.1.1.30 Delete Booking.....	46
6.1.1.31 View Booking Status.....	47
6.1.1.32 Create Booking Notification.....	47
6.1.1.33 Create Medium Detail.....	47
6.1.1.34 Search Medium Detail.....	47
6.1.1.35 Update Medium Detail.....	47
6.1.1.36 Delete Medium Detail.....	47
6.1.1.37 Create Artwork Detail	47
6.1.1.38 Search Artwork Detail	47
6.1.1.39 Update Artwork Detail	47
6.1.1.40 Delete Artwork Detail	47
6.1.2 Exhibition subsystem	47
6.1.2.1 Apply for Exhibition.....	47
6.1.2.2 View existing Exhibitions.....	47
6.1.2.3 Search existing Exhibitions.....	47
6.1.2.4 View Invitation for Exhibition	47
6.1.2.5 Capture tag Information	47
6.1.3 Art Class Subsystem	47
6.1.3.1 Book Art Class	47
6.1.3.2 View existing Classes.....	47



6.1.3.3 Search Existing Class	47
6.1.3.4 Cancel Booking	47
6.1.3.5 Make Payment	47
6.1.3.6 Generate booking confirmation message.....	47
6.1.3.7 View Refund information.....	47
6.1.4 Payment Subsystem.....	47
6.1.4.1 Add Payment status	47
6.1.5 Gallery Artwork Subsystem.....	48
6.1.5.1 Search Gallery Artwork Type	48
6.1.6 Reporting Subsystem	48
6.1.6.1 Generate Booking Report	48
6.1.6.2 Generate New Users Report	48
6.1.6.3 Generate Popular Art Class Report	48
6.1.7 Public User subsystem	48
6.1.7.1 Register User	48
6.1.7.2 Log in.....	48
6.1.7.3 Log out	48
6.1.7.4 Reset Password	48
6.1.7.5 Update User	48
6.1.7.6 View Software Guide	48
6.1.7.7 View Notification	48
6.1.7.8 Start Authentication process	48
6.1.8 Artist Subsystem	48
6.1.8.1 Apply for Exhibition.....	48
6.1.8.2 Apply to Teach Class	48
6.1.8.3 Add picture.....	48
6.1.8.4 Update Picture	48
6.1.8.5 Delete Picture	48
6.1.8.6 View invitation	48
6.1.9 Archive Subsystem	49
6.1.9.1 Create Archive.....	49
6.1.9.2 Search Archive.....	49
6.1.9.3 Update Archive	49
6.1.9.4 Delete Archive.....	49
6.1.10 Class Teacher Subsystem	49



6.1.10.1 Generate Information	49
6.1.11 Frame Subsystem	49
6.1.11.1 Create Frame Order	49
6.1.11.2 Search Frame Order	49
6.1.11.3 Update Frame Order	49
6.1.11.4 Delete Frame Order	49
6.2 Functional Requirements descriptions and details.....	50
6.2.1 Admin subsystem	50
6.2.2 Admin subsystem	73
6.2.3 Admin subsystem	76
6.2.4 Payment subsystem	80
6.2.5 Gallery Artwork subsystem	81
6.2.6 Reporting subsystem	82
6.2.7 Public User subsystem	84
6.2.8 Artist subsystem.....	89
6.2.9 Archive subsystem	93
6.2.10 Class Teacher subsystem	95
6.2.11 Public User subsystem	96
6.4 Non-Functional Requirements.....	99
Conclusion.....	104
7. Feasibility/Decision Analysis	105
7.1 Introduction	105
7.1.1 Purpose of the feasibility analysis.....	105
7.1.2 Background	105
7.1.3 Scope and Structure of the feasibility Analysis.....	105
7.1.3.1 Artech System	105
7.1.3.2 Robertson Art Gallery	106
7.1.3.3 Art Galleria	106
7.2 Feasibility Analysis	107
7.2.1 Details of each alternative (including operational, technical, schedule and economic issues)	111
7.2.2 Recommendations from Feasibility Analysis:	113
Conclusion.....	114
8. Appendix A: Client documentation.....	114
9. Appendix B: Other Systems Investigated.....	136



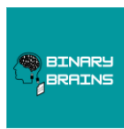
Introduction	136
9.1 Robertson Art Gallery (Candidate 1).....	136
9.2 ArtGalleria (Candidate 2)	141
Conclusion.....	145
10. Appendix C: Complexity	146
11. Sign off by Client	149
12. Document Conclusion	150

Table of Figures

Figure 1: Organisational Hierarchy	12
Figure 2: Johann & Mieke	14
Figure 3: Rich Picture Current System (Classes)	39
Figure 4: Rich Picture Current System (Exhibitions)	39
Figure 5: Rich Picture Proposed System (Exhibitions)	43
Figure 6: Rich Picture Proposed System(Classes)	44
Figure 7: Homepage of the Website	114
Figure 8: Posters of Available Exhibitions.....	115
Figure 9: Posters of Art Classes and Studio Events	116
Figure 10: The Gallery menu list	117
Figure 11: Options Available when Clicked on More.....	118
Figure 12:Option 1: The Frame Shop (Provides A short description about frames).....	119
Figure 13: Option 2: The contact option (part 1).....	120
Figure 14: Option 2: The Contact Option (part 2).....	120
Figure 15: Option 3: Blog	121
Figure 16: Option 4: Category	121
Figure 17: Gallery sales for the year per artist log.....	122
Figure 18: Artist banking details on Excel.....	122
Figure 19: Daily report from till machine for sales	123
Figure 20: A sample slip from the general sale.....	124
Figure 21: Holding Area for art	124
Figure 22: Job card for framing. Invoice is attached when complete.....	125
Figure 23: Daily sales end part.....	125
Figure 24: Daily sales table based of slips for the day	126
Figure 25: Artist contact information files	126
Figure 26: Artwork with new tags sorted manually.....	127
Figure 27: Groups with artist for an exhibition.....	128
Figure 28: File containing artists per exhibition with tags.....	129
Figure 29: Keeping track of class bookings, numbers of students and who has paid what amount..	130
Figure 30: Artwork ready for collection with invoice and tag	130
Figure 31: Calendar where all classes and exhibitions are planned	131
Figure 32: Empty invoice.....	132



Figure 33: Filled invoice	133
Figure 34: Tag page	133
Figure 35: Artist registration and work intake form	134
Figure 36: Details of class after paid over WhatsApp	135
Figure 37: Payment process for classes communicated over WhatsApp	135
Figure 38: Robertson Art Gallery Homepage	136
Figure 39: Robertson Art Gallery Artists	137
Figure 40: Robertson Art Gallery Artist Profile	138
Figure 41: Robertson Art Gallery Artist CV/ Biography.....	138
Figure 42: Robertson Art Gallery Artist Artwork.....	139
Figure 43: Robertson Art Gallery Order Form for artwork	140
Figure 44: Art Galleria Homepage and overview	141
Figure 45: Art Galleria Database feature	142
Figure 46: Art Galleria Easy Generatable PDFs feature	143
Figure 47: Email Integrations Feature.....	143
Figure 48: Art Galleria Management feature.....	145



1. Document Introduction

This document serves as the Project Proposal to the necessary stakeholders to decide whether the project is feasible and to the standard prescribed by the Client. The project includes history and background in the Johann van Heerden Art Gallery as well as many investigations or analysis into the current and proposed system. The document entails a feasibility analysis to understand how our Artech system would fare against available systems on the market. This document serves as a lead to follow in designing the system and the requirements it critically needs to fulfil.



2. Client information

Introduction

Binary Brains is working towards building an effective system for our client, The Johann van Heerden Art Gallery. This section will define our client and describe its history and background, the structure of its operations, the environment within the organization, the area of the situated organization, and further information on the person in charge of the organization.

2.1 Description of the Organizations History and Background

The Johann van Heerden Art Gallery was established in 2014 by Johann and his partner Miekie - both being artists themselves. This business had begun accidentally when Johann visited a place to buy some valuables and noticed a wooden shack that sparked his interest. He compelled Miekie to view this wooden shack that he had found and that is when they both knew that they wanted to turn this place into something beautiful. They made a few changes to the place and opened up a Gallery in Farm City, which operated during the weekends only. Back then this gallery only featured artworks of Miekie, Johann and a few of their friends. Gradually, artists began recognizing the gallery wanted to collaborate with them, hence the gallery began growing massively.

In 2018, Farm city got bankrupt and shut doors for all business. This forced Miekie and Johann to end their business as they did not have another place to move to in such a short notice. This made them devastated, and they realized that the gallery held a huge place in their life. Soon both the partners searched for places and finally found a spot in Pretoria that suited their business environment appropriately. They bought the place immediately and renovated it to expand their area of work, and this changed from a weekend business to an everyday business.

This was a huge change for both the partners, but they took the courageous leap and managed everything in a very stable manner. The gallery grew from there and collaborated with various artists across South Africa.

2.2 Description of the Organization

The Johann van Heerden Art Gallery is a gallery that showcases artworks of artists around South Africa. Its goal is to be physically available within the country as well as go global on an online platform a few.

years down the lane. Miekie (the curator) has the necessary suite of skills and experience to perform activities that lure users into the business to create impactful, and meaningful pieces of artwork.

This Gallery holds at a minimum of at least one exhibition per month. These exhibitions are created by Miekie and planned a year in advance to avoid confusion and excessive workload. Each exhibition exhibits specific types of artworks by specific artists who Miekie invites. Miekie also advertises her



gallery so that Artists who are interested in being part of an exhibition can contact her through her social media or via email. Miekie then handpicks from the interested artists and welcomes them onboard. The selection for the type of artists for a specific exhibition is done a period in advance which includes artworks of a specific type. Once the exhibitions are done, customers make the payments to Miekie, and then she makes the payments to the respective artists.

Apart from the exhibitions, the gallery also provides art classes on different types of artworks via several artists themselves. Artists who are in contact with Miekie, also the ones who are not, can apply to conduct classes within the gallery. Miekie also holds the authority to invite artists to teach specific types of artworks. Since she is an artist herself, she has her ways of selecting teachers. This also allows more user interaction due to students being a part of this business.

In order to complete the artwork, the gallery also creates frames on orders made from the customers who bought artworks presented at the gallery, or from the general public who want to frame their own artwork.

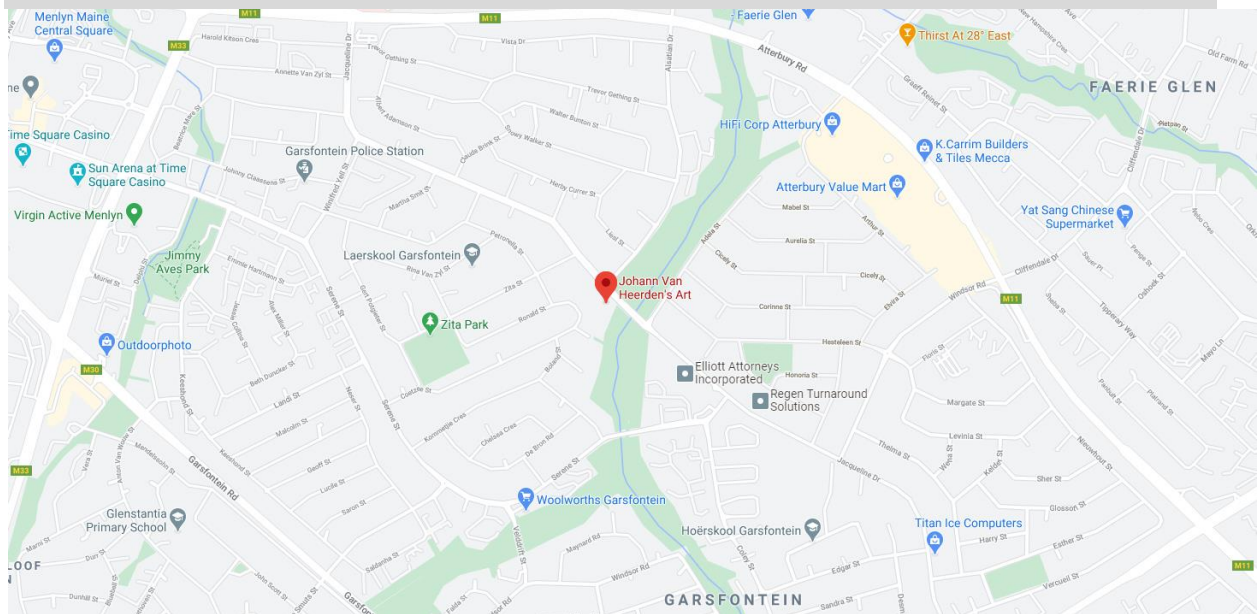
2.3 Organizational Structure



Figure 1: Organisational Hierarchy



2.4 Area of Business



Address: 593 Jacqueline Dr, Garsfontein, Pretoria, 0001

Website: <http://www.johannvanheerdensart.studio/>

Contact: +27824453917

2.5 Business Environment

The Johann van Heerden Art Gallery is set up in Garsfontein, Pretoria. It is an extremely appealing location as it is surrounded by greenery and artsy equipment. As you enter the location you see a cafeteria on a deck like structure. The building has 2 forms for entry, one being through the cafeteria and the other on the right of the cafeteria, where you can see all the artworks hung on the wall. Each week a new artwork is hung on the wall. As you walk in and navigate your way through, you will see several rooms where exhibitions and classes are held. The gallery house is beautifully designed keeping security, structure, and theme in mind. The place gives out an incredibly positive aura.

In terms of security, only Miekie (the curator) can allow access in and out of the gallery. Equipment and artworks are not to be touched unless authorized by Miekie. The general area maintenance is handled by Miekie. Outside the Gallery's main entrance is a parking lot for visitors.

All exhibitions take place in one of the rooms that are within the gallery, depending on the number of artworks presented per exhibition. There is a reception like area where Miekie can accept payments, create frame orders and/or talk to the customers, or walk in artists and students.

The overall business environment is pleasant and extremely user-friendly. The gallery is easy to locate and exists in a peaceful environment.

2.6 Contact Person

2.6.1 Contact Person Particulars:

Miekie Lourens (Curator of the Johann van Heerden Art Gallery)

+27797809807

Johann van Heerden (Owner of The Johann van Heerden Art Gallery)

+27824453917

Email: johannvanheerdensart@gmail.com



Figure 2: Johann & Miekie

Conclusion

In Conclusion, this section defined our client - The Johann van Heerden Art Gallery, and describe its history and background, the structure of its operations, the environment within the organization, the area of the situated organization, and further information on the person in charge of the organization.



3. Project Request

Introduction

This section outlines the current business problems and challenges faced with the kinds of operations run within the business and focuses on the client's specifications to mitigate these business issues and make it run more effectively and efficiently.

3.1 Project Request

All operations run within the art gallery are executed physically, on paper or over basic Microsoft Office applications like Excel, PowerPoint, Word etc. The communication between the curator and the user takes place over e-mails, WhatsApp, or phone calls. There is no implementation of any sort of hard-core technological system to perform these operations effectively. Hence, all the work done within the gallery at the moment is performed by Mieke. Contacting the artists, inviting artists, curating their artwork, cutting and print out tags individually and assigning to artworks, exhibiting all the artwork, dealing with payments of artwork, and booking of classes, creating classes, advertising classes, advertising exhibitions, sending reminders, adding teachers, communicating details, registering users – all these functions are carried out by Mieke. Mieke has appointed only one employee, who assists her in the cafeteria section of the gallery. Mieke also uses the aid of an extremely basic website she created on Weebly in order to post her posters about the exhibitions, art classes, studio workshops and contact details.

The requested system required Binary Brains to move all these paper-based and physical work into an automating digital system, while also improving many of the manual tasks.

- User Management:

All the users must have access to all the features.

All the user details must be captured and managed within the system after registration.

Users must also be able to apply to become a teacher for art classes.

- Artist management:

Artists should be able to apply for exhibition and view invites.

All the information about the artists who are part of exhibitions must be saved within that specific exhibition as well as on their personal profiles.

Confidential Artist profile I.e., only the artist themselves or the admin can view their profile.

- Exhibition Management:

Create, capture, store, manage and view all exhibition details.

Send exhibition invites to artists.

- Artwork Management:

Manage the artworks uploaded onto the system by categorizing them.



- Booking/Scheduling Art classes:

Allow booking of art classes made over the system.

Allow approval and availability of booking onto the system keeping in mind the business rules.

Conclusion

The requested system should be in the form of a web application that provides easy access to the admin, and the potential and current users within the system, to be able to engage in available activities provided by the gallery. This includes applying for exhibitions, booking, and scheduling for art classes, applying to teach art, creating, and assessing exhibitions and art classes, and viewing various types of artworks.



4. Preliminary Investigation

Introduction

The Preliminary investigation is a section where we identify what the current system needs. The following section will provide a detailed overview of the problems and opportunities, directives, assumptions, and the elicitation techniques we are taking on.

4.1 Problem/Vision Statement

4.1.1 Problem 1

The problem of	<ul style="list-style-type: none"> The current system is outdated. Everything is paper based. The client's exhibition bookings are paper based, in which she sends out a pdf form though email then prints them out once she gets them back from the artists. She does not have an existing exhibition booking system that makes the art exhibition bookings. She also uses excel spreadsheet, that she needs to keep updating manually to store her client's details.
Affects:	<ul style="list-style-type: none"> Miekie (The curator)
The impact of which:	<p>The process of Miekie having to wait for the tags to be sent back before a booking exhibition is fully made can be time consuming, especially in cases where an artist has filled in the form incorrectly or some details are missing.</p> <p>This also leads to Micky not having proper track of the exhibition bookings she has made.</p>
A successful solution would:	<p>To create a front end where artists can register and book exhibitions.</p> <p>To also create a system where the owner as the admin of the system, can Create/Add/Update/Delete anything regarding the artists and exhibitions on the</p>



	<p>website, where she can also approve and disapprove artists, she wants on her database. She will also be able to invite existing artists on her database to other future exhibitions. This will enable her to grow her business and avoid human error.</p>
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4.1.2 Problem 2

The problem of	<p>The owner has an online form that artists fill out to create an artist tag. This artist tag goes with each artist's artwork. The artist tag is in pdf form. The issue is a lot of people cannot fill in the pdf forms.</p> <p>Some people do not fill it in correctly or change the format completely.</p> <p>The process of finding which artwork belongs to which tag can also be time consuming.</p> <p>Some people print out the pdf and fill the form in with their handwriting. This makes it much harder for Miekie to read the different hand writings and she then must fill it into the system from the handwritten form.</p>
Affects:	<ul style="list-style-type: none"> • Miekie (The curator) • Artists who struggle with filling in the forms.
The impact of which:	<ul style="list-style-type: none"> • Miekie • Some artists do not have the software to fill the pdfs out. This leads to artists using a variety of tools to fill in these pdf tags which in many cases leads to them changing the format of her tags, which she wants in a particular way. • The inability to fill in the pdf forms also frustrates the clients who are unable to do so. Having to find alternative measures to do so can also be time consuming and be a bit of an inconvenience on their side. • Incorrectly filled tags will create a lot of admin work for Miekie (the owner) in terms of fixing the tags and having to contact the artists regarding tags.



	<ul style="list-style-type: none"> It leaves room for human error, in terms of being unable to read some handwritings.
A successful solution would:	<p>To create web-based website where artists can register themselves and their artwork, and book art exhibitions on the website. They will be able to create the tags on the website for the art exhibitions which Mieke can just print out. This will enable Mieke to keep her format and have a record of all the artists in her art exhibitions, even future ones.</p>

4.1.3 Problem 3

The problem of	<ul style="list-style-type: none"> The current system for making art class bookings is outdated. Mieke uses WhatsApp and/or email to secure and book art classes. There is an ineffective proper system to book and keep track of art classes.
Affects:	<ul style="list-style-type: none"> Mieke (The curator)
The impact of which:	<p>Mieke can miss some booking requests from not seeing the WhatsApp text. There have been cases of overbookings of classes from misunderstandings from the WhatsApp texts.</p>
A successful solution would:	<p>To create a front end where customers can book art classes online, with full details on the type of art class they are booking, the price and art equipment they will need and the availability of classes.</p> <p>A back end where Micky can Create/View/Delete art class bookings and Create/Delete future and past art classes, this will enable her to keep track of all her class bookings.</p>

4.2 Business Goals and Objectives (SMART)

Specific: To relieve the administrator's burden of performing exhibitions, booking art classes, collaborating with a variety of artists, curating artwork, and improving communication between the artists, customers, and the administrator.

Measurable: By the end of 2021, the goal of the system is to be operational and relieve the administrators' duties. The gallery is satisfied with the systems in total and functions efficiently to provide the maximum effectiveness, both on the front and the back end. The client can measure if better business goals are achieved with a new system by measuring their client's happiness and how quickly or effectively administration is completed.

Attainable: The Scope of the new system as well as the business goals the business wants to achieve has been broken down into various deliverables with regards to the focus on specific sections of programming and system design and analysis. A whole year is provided to complete the project and is divided amongst a team of 5 which makes this goal achievable.

Relevance: The system is relevant and realistic as it is designed for a client keeping in mind that they may use it for their current organization as it will ease their workflow drastically. The new system will be relevant as it will aid the curator in all fields of her business administration and effectively achieve better results in the business.

Timebound: Project to be completed end to end by the 30th of November 2021.

4.3 Problems, Opportunities and Directives

4.3.1 Detailed, problems, Opportunities and Directives Matrix

PROJECT:	Artech Systems	PROJECT MANAGER:
CREATED BY:	Reagile Matloga	LAST UPDATED BY: Reagile Matloga
DATE CREATED: 30/03/2021	DATE LAST UPDATED: 03/04/2021	

Brief Statement of Problem	The impact the problem is causing	Expected benefits from any potential solution	How quickly can the problem potentially be resolved	What is the underlying source of the problem?	What will it cost to solve the problem?
1. Frustrated and inconvenienced artists. Artists struggling with filling in pdfs to register for exhibitions and being frustrated and	The number of artists participating in exhibitions is always different from the amount of people who	Have more artists attend exhibitions as it will be far easier to get their	9 months	System for artists to participate is paper-based	R0; business knowledge input from the client; 9 months of hard work



inconvenienced because they are required to download software's to do so.	wanted to participate initially. The inability to fill in these pdf forms made them miss the deadline, and overall ended up not participating. Leads to overall decrease in artist exhibiting as less artists are able to complete their registration.	information to Miekie (The Curator)		and problematic.	dedicated by Binary Brains.
2. Ineffective communication between owner and potential artists and art students. With most communication taking place on WhatsApp and social media especially things like deadlines for submitting art. Some customers do not have personal applications like Facebook and WhatsApp and some simply miss the WhatsApp text. Artists and students make it the main source of communicating with Miekie and she gets so many messages, it's easy to miss one.	Missing a WhatsApp text is quite easy. It can lead to people making that the main source of communication and Miekie might not see the message, then there are instances of people bring extra partners to art classes assuming Miekie saw their WhatsApp text to book. Sometimes Miekie can send out an important communication and the clients simply do not see it.	Improved and effective communication between the artist, student, and the Curator (Miekie). Customers will get all the information they need as soon as they register .	9 months	Artists who register for exhibition as well as students who want to attend classes only get their full details and information on WhatsApp. The WhatsApp system is ineffective.	RO; A full web-based system with full detailed information to the users. 9 months of hard work dedicated by Binary Brains.

Brief Statements of Opportunity	Urgency	Visibility	Annual Benefits	Priority or Rank	Proposed Solution
3. Replace the current paper-based and tag	6 months	High	Unknown	1	



system with an online web-based system for better communication between clients and the business. By creating an application where customers can access it from web browser.					Develop a web application using AngularJS and
4. The automation of tags upon registration for artists who are interested in exhibitions.	5 months	High	Artists will not have to struggle with filling in pdf's anymore.	2	Build a web application where potential artists can register and then be able to generate tags on the system that Mieke (The owner) can just print out.
5.Capturing the artists and students personal information and details, especially banking details with better security on a database instead of an excel sheet or on paper.	6 months	High	The artists personal information will be better protected and lead to a great quality in the organization's data.	3	Create a relational database and Investigate standards required to store customer data and implement them.
6.To create notifications to serve as constant reminders to artists and art class students of the information they require.	6 months	Medium	The artist will have consistent communication on the information and details of their respective bookings.	4	Create a system where we can implement reminders and notifications.

Brief Statements of Directive	Urgency	Visibility	Annual Benefits	Priority or Rank	Proposed Solution
7.Implement POPIA (Protection Personal Information Act) which will protect the data of the artists and students in the organization	6 months	High	The organization will have the users the privilege of having control over how their data is handled in the organization. The excel spreadsheets and paper are not the safest	4	Implement the POPIA guidelines to ensure the artists information is protected as some artists are very private and sometimes want to be anonymous. This will enable them to



			systems to be able to do so.		control their right to privacy, including protection against searches.
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4.4 Preliminary Assumptions and Constraints

This section will be an overview of the preliminary assumptions and constraints of the system we are building.

4.4.1 Assumptions

- Artists will apply to be part of an exhibition.
- Clients will be able to book their Art Classes.
- Each class will depend on what kind of teacher for the specific medium available.
- We have gathered detailed information about the business processes.
- The client is fully aware of everything that is being offered and being done in this final year project.

4.4.2 Constraints

- Time constraint
As final year students, the workload for every other module is just as high so it will be a challenge to balance everything out and simultaneously create a full system in a space of 8 months.
- Budget Constraint
Our budget for the INF 370 project is limited from documentation to printing. We would therefore need to budget properly and spend money wisely.
- Technology constraint
Most of Miekie's clientele is still a little backwards in terms of technology and are also used to informal communications like WhatsApp by now.
- Skills constraint
The group members are required to learn new processes, methods, skills, software's, and skills to get through INF 370.



4.5 Elicitation Techniques

4.6 Motivations

Elicitation technique	Motivation
Brainstorming	Getting together for a brainstorm session opens the floor to put new innovative ideas on the floor, so we can see how well this would fit to the current situation of Johann Van Heerden Art Gallery. Processing ideas to bring forth efficiency and effectiveness builds up the perfect technique in providing to the client a system that they not only want but need.
Interview	Conducting interviews allows us to follow an extremely important principle in allowing the client to be heard on what their view is on the situation and what requirements, problems, and daily difficulties they face with their current system. It allows us to gather data at the source of the system and get a good feel of the organisation being there and to personally get involved of what is going on. Making it personal give us a more hands on feeling to help out and take these problems just as personal as the client does.



4.7 Detailed proof for Elicitation Techniques

4.7.1 Elicitation Technique: Brainstorming

Preparation checklist		
No	Task	Done
1	Define area of interest	<input checked="" type="checkbox"/>
2	Define time limit	<input checked="" type="checkbox"/>
3	Identify participants	<input checked="" type="checkbox"/>
4	Identify facilitator	<input checked="" type="checkbox"/>
5	Invite participants	<input checked="" type="checkbox"/>
6	Invite facilitator	<input checked="" type="checkbox"/>
7	Meet with participants to explain expectations	<input checked="" type="checkbox"/>
8	Establish evaluation criteria	<input checked="" type="checkbox"/>
9	Book venue/meeting room	<input checked="" type="checkbox"/>



During Elicitation checklist		
No	Task	Done
1	Share new ideas	<input checked="" type="checkbox"/>
2	Record all ideas	<input checked="" type="checkbox"/>
3	Build on ideas	<input checked="" type="checkbox"/>
4	Elicit as many ideas as possible	<input checked="" type="checkbox"/>

After Elicitation checklist		
No	Task	Done
1	Discuss and evaluate ideas	<input checked="" type="checkbox"/>
2	Create list of ideas	<input checked="" type="checkbox"/>
3	Rate ideas	<input checked="" type="checkbox"/>
4	Distribute final list of ideas	<input checked="" type="checkbox"/>
5	Schedule follow-up if needed	<input checked="" type="checkbox"/>

4.7.2 Elicitation Technique: Interviews

Preparation checklist		
No	Task	Done
1	Decide which type of interview	<input checked="" type="checkbox"/>
2	Decide on interview goal	<input checked="" type="checkbox"/>
3	Create list of questions	<input checked="" type="checkbox"/>
4	Identify potential interviewees	<input type="checkbox"/>
5	Decide on location for interview	<input checked="" type="checkbox"/>
6	Invite interviewees	<input checked="" type="checkbox"/>
7	Send questions to interviewees (optional)	<input type="checkbox"/>

During Elicitation checklist		
No	Task	Done



1 Describe purpose of interview



2 Confirm interviewees' roles



3 Address any concerns



4 Explain how information will be recorded and shared



5 Ask predefined questions



6 Summarize the session



After Elicitation checklist

No	Task	Done
----	------	------

1 Organize information



2 Confirm results with interviewees



3 Share information with stakeholders



4 Schedule follow-up interview if needed





4.8 Proof of Elicitation techniques tasks performed before, during and after

4.8.1 Interviews

Before, During and After the Interview

4.8.1.1 Proof of Preparation Tasks: Before Interviews

We got together as a group and discussed all the possible questions that we would like to ask Miekie (the curator). One of our members (Dean Botha) had been at the gallery for an art class so he had gotten an inside look into the gallery before any of us had the chance to. This was an advantage to the group because he was able to clarify any misunderstandings that might have had about the current system.

4.8.1.2 Proof of Preparation Tasks: During Interviews

In the interview we all sat with the Curator (Miekie) and we asked her the questions that we had come up with and then also briefed her on what our proposed system would entail. We also made it our mission to find out what her expectations were as it preceded to delivering the system and if it will be able meet her system requirements and needs. I (Gamuchirai Dambanjera) was taking down notes whilst another member was recording audio to be used as reference for an insight we might have needed at that moment or in the future.

4.8.1.3 Proof of Preparation Tasks: After Interviews

We got together as a group to review the answers we had received from the Curator so that we could identify the requirements and what needs would be as well as what the necessary requirements of the system would be.

Interview questions

1. Describe the history and background of the organization?

The Johann van Heerden Art Gallery was established in 2014 by Johann and his partner Miekie - both being artists themselves. This business had begun accidentally when Johann



visited a place to buy some valuables and noticed a wooden shack that sparked his interest. He compelled Miekie to view this wooden shack that he had found and that's when they both knew that they wanted to turn this place into something beautiful. They made a few changes to the place and opened up a Gallery in Farm City, which operated during the weekends only. Back then this gallery only featured artworks of Miekie, Johann and a few of their friends. Gradually, artists began recognizing the gallery wanted to collaborate with them, hence the gallery began growing massively.

In 2018, Farm city got bankrupt and shut doors for all business. This forced Miekie and Johann to end their business as they did not have another place to move to in such a short notice. This made them devastated, and they realized that the gallery held a huge place in their life. Soon both the partners searched for places and finally found a spot in Pretoria that suited their business environment appropriately. They bought the place immediately and renovated it to expand their area of work, and this changed from a weekend business to an everyday business.

This was a huge change for both the partners, but they took the courageous leap and managed everything in a very stable manner. The gallery grew further and further from there and collaborated with various artists across South Africa.

2. Describe the organization; the organisational structure (including management structure); the area of business; the business environment; etc.?

The Johann van Heerden Art Gallery is a gallery that showcases artworks of artists around South Africa. Its goal is to be physically available within the country as well as go global on an online platform a few years down the lane. Miekie (the curator) has the necessary suite of skills and experience to perform activities that lure users into the business to create impactful, and meaningful pieces of artwork.

This Gallery holds at a minimum of at least one exhibition per month. These exhibitions are created by Miekie and planned a year in advance in order to avoid confusion and excessive workload. Each exhibition exhibits specific types of artworks by specific artists who Miekie invites. Miekie also advertises her gallery so that Artists who are interested in being part of an exhibition can contact her through her social media or via email. Miekie then handpicks from the interested artists and welcomes them onboard. The selection for the type of artists for a specific exhibition is done a period in advance which includes artworks of a specific type. Once the exhibitions are done, customers make the payments to Miekie, and then she makes the payments to the respective artists.



Apart from the exhibitions, the gallery also provides art classes on different types of artworks via several artists themselves. Artists who are in contact with Miekie, also the ones who aren't, can apply to conduct classes within the gallery. Miekie also holds the authority to invite artists to teach specific types of artworks. Since she is an artist herself, she has her ways of selecting teachers. This also allows more user interaction due to students being a part of this business.

In order to complete the artwork, the gallery also creates frames on orders made from the customers who bought artworks presented at the gallery, or from the general public who want to frame their own artwork.

3. Describe the general contact particulars; position; background; etc. of the person you will be dealing with in the organisation.?

The gallery is owned by Miekie Lourens and her husband Johann. Miekie is the curator of the gallery and also oversees the daily operations of the business. Miekie is originally an art teacher and Johann is originally an artist. Miekie runs the gallery with the help of her assistant, Patience.

Johann oversees the admin side of the business and also helps wherever he can with the business. He's an artist after all, so he usually is busy making his own artwork.

For more info, Email: johannvanheerdensart@gmail.com

Provide a Summary for the business

Johann van Heerden is a contemporary Gallery featuring the works of an array of artists from across South Africa. Their main goal is to showcase the artworks of local artists (described as the underdog artists by the Curator) as well as give them opportunities they wouldn't normally get from big art galleries across the country that normally focus on international art.

Provide a vision for your system

Registering Artist

Link to form on their website which an artist can fill in.

On this form all the necessary data must be filled in as well as max 5 photos of artwork for the Curators approval. This application will be sent to the Curator for review. Once it is



accepted the artist will get a notification and his/her data will be put on the database as a registered artist. Also, his banking details will be stored in a separate part of the database.

This system will enable artists to sign up (Register Artist) and interact to update their information.

Registering an exhibition and inviting artists

The Curator will have the option to create a new exhibition with date time etc.

The Curator will be able to invite registered artists to the exhibition which will send an email with the invitation which includes the exhibition details.

If the artist accepts the invitation the Curator will get a notification and the Tag form will be sent to the artist too fill in. The tags will be auto filled in for names.

Once the tag list is filled in. The artist confirms these details, and it is sent to the Curator to be printed.

Creating an Art Class

The Curator can create a class and it will be available to view in a table to the public.

Class Booking

The public fill in a form from the website that they would be interested to join in on a class.

If the class is full the form will only state that the class is full, but it will not be deleted as people have time to pay if not spaces will be available.

The Public can fill in their details and the amount of people to book for. Then they receive a booking confirmation email with the payment details and by when it must be paid.

A reminder before the payment is due will be sent out.

The Curator will be able to see who has booked for a class. As soon as they have paid a 50% deposit she can approve, and the slot is finally booked.

If the public cancels their class two days before the class, the refund will be payable hence there will be an option for the public to cancel their booking

When the spot is booked in full the public/student will receive all details relating to the class, time, date, what is needed etc.

List the business goals and objectives

The goal of the business is to provide local artists with an opportunity to showcase their talent as well as teach aspiring artists various types of art lessons. The gallery is only focused on providing services within South African borders.



What are your personal problems with your current method of doing things in your business?

Booking is done via Email/WhatsApp which is prone to human errors. Tags have to be extracted from emails and discrepancies in matching artwork to tags is entirely impossible.

What documentation do you have?

Miekie (the curator) has: Emails, Phone calls, WhatsApp messages, Text messages, lessons plans for art classes, schedules, receipts, indemnity forms and invoices.

4.8.2 Brainstorming

We reached the decision to have a brainstorming session as a group to determine the functional requirements to include as part of the Artech system that we will be developing. Every member was asked to prepare a list of functional requirements and group them into subsystems as well as compile a list of the non-functional requirements. During the brainstorming session, every member shared their ideas for the subsystems and when everyone agreed on them, they were written down on the mind-map. Then the functional requirements were agreed on for each subsystem and again written

down on the mind-map. The contents of this mind map were used to create the analysis of the functional and non-functional requirements.

4.8.2.1 Proof of Preparation Tasks: Before Brainstorming

- Functional Requirements
- Met for 5 hours
- Met Miekie at the Gallery
- We invited participants via Email
- The project manager organized the brainstorming session
- Met on 15/03/2021 on Google Meets
- Planned to meet at Johann Van Heerden Art Gallery in Garsfontein on 16/03/2021

Proof of Preparation Tasks: During Brainstorming

- Functional requirements were verbally discussed
- We brainstormed and formed new ideas on top the ones we already had.



Proof of Preparation Tasks: After Brainstorming

- Had a discussion and included all viable ideas in a list.
- No rating needed
- Follow up not needed.
- Every week we decided to meet twice, online either on Discord or Google meets, to work on these functionalities and for follow ups.

The below Functional requirements are what were discussed in Brainstorming:

Admin subsystem

- Approve exhibition user
- Delete exhibition user
- Search exhibition User
- Create new Exhibition
- Search Exhibition
- Update Exhibition
- Delete Exhibition
- Create Class
- Update Class
- Search Class
- Delete Class
- Add Class Teacher
- Search Class Teacher
- Update Class Teacher
- Delete Class Teacher
- Add Artwork
- Delete Artwork
- Search Artwork
- Approve Booking
- Delete Booking
- Update Booking
- Search Booking
- Create Reminder
- Update Reminder
- Delete Reminder
- Create Tag
- Update Tag



- Generate Tag
- Create Medium Details
- Create Software Guide
- Create Invitation
- Update Payment Status
- View Payment Status
- Create Notification
- Create Medium Details
- Search Medium Details
- Delete Medium Details
- Update Medium Details
- Create Artwork Details
- Search Artwork Details
- Delete Artwork Details
- Update Artwork Details

Book Exhibition subsystem

- Apply for Exhibition
- View existing Exhibition
- Search existing Exhibition
- Apply for Exhibition via Invitation

Booking Classes Subsystem

- Book Class
- View existing Class
- Search Medium Type
- Search Existing Class
- View Refund information
- Cancel Booking
- Request Booking Update
- View Class Schedule
- Generate Invoice
- Generate booking confirmation message

Payment Subsystem

- Add Payment status
- Apply for Refund



Artwork Subsystem

- View Medium Details
- View Artwork Details
- Update Personal Artwork
- Search Artwork Type

Reporting Subsystem

- Generate Booking Report
- Generate New Users Report
- Generate Medium Report

User subsystem

- Register User
- Log in
- Log out
- Reset Password
- Update User
- View Software Guide
- View Notification
- Password Authentication

Archive Subsystem

- Create Archive
- Search Archive
- Update Archive
- Delete Archive

Notifications Subsystem

- Send Reminders
- View invitation

Class Teacher Subsystem



- Generate Contact Information
- Contact Gallery

Tag's subsystem

- Fill in Tag
- Submit Tag

Conclusion

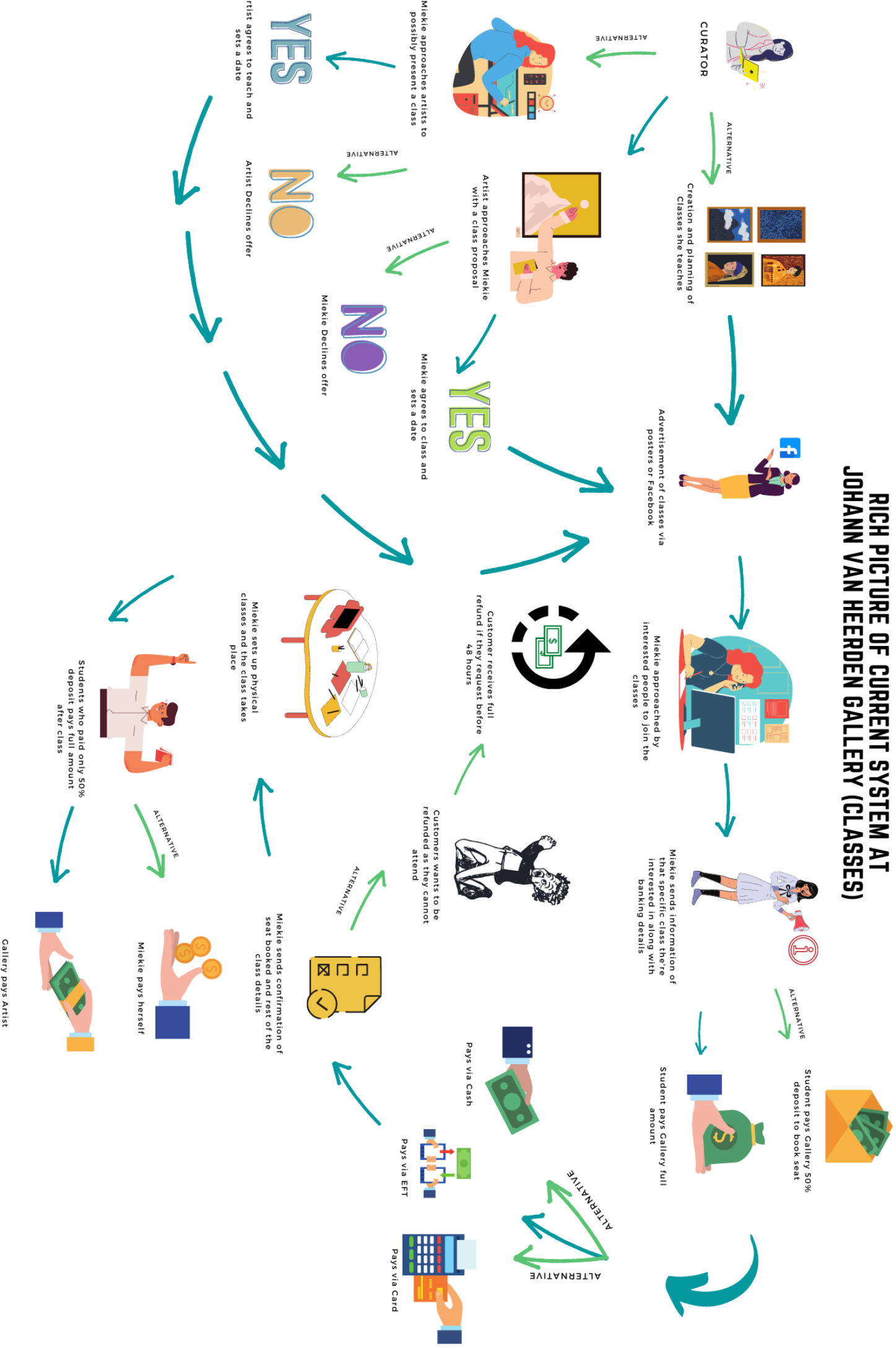
After conducting this investigation, we discovered that the proposed system had a lot of potential functions that could be extremely useful and solve many problems for the business as well as help reach its goals, while there are not too many constraints to limit the systems potential.

5. Problem Analysis

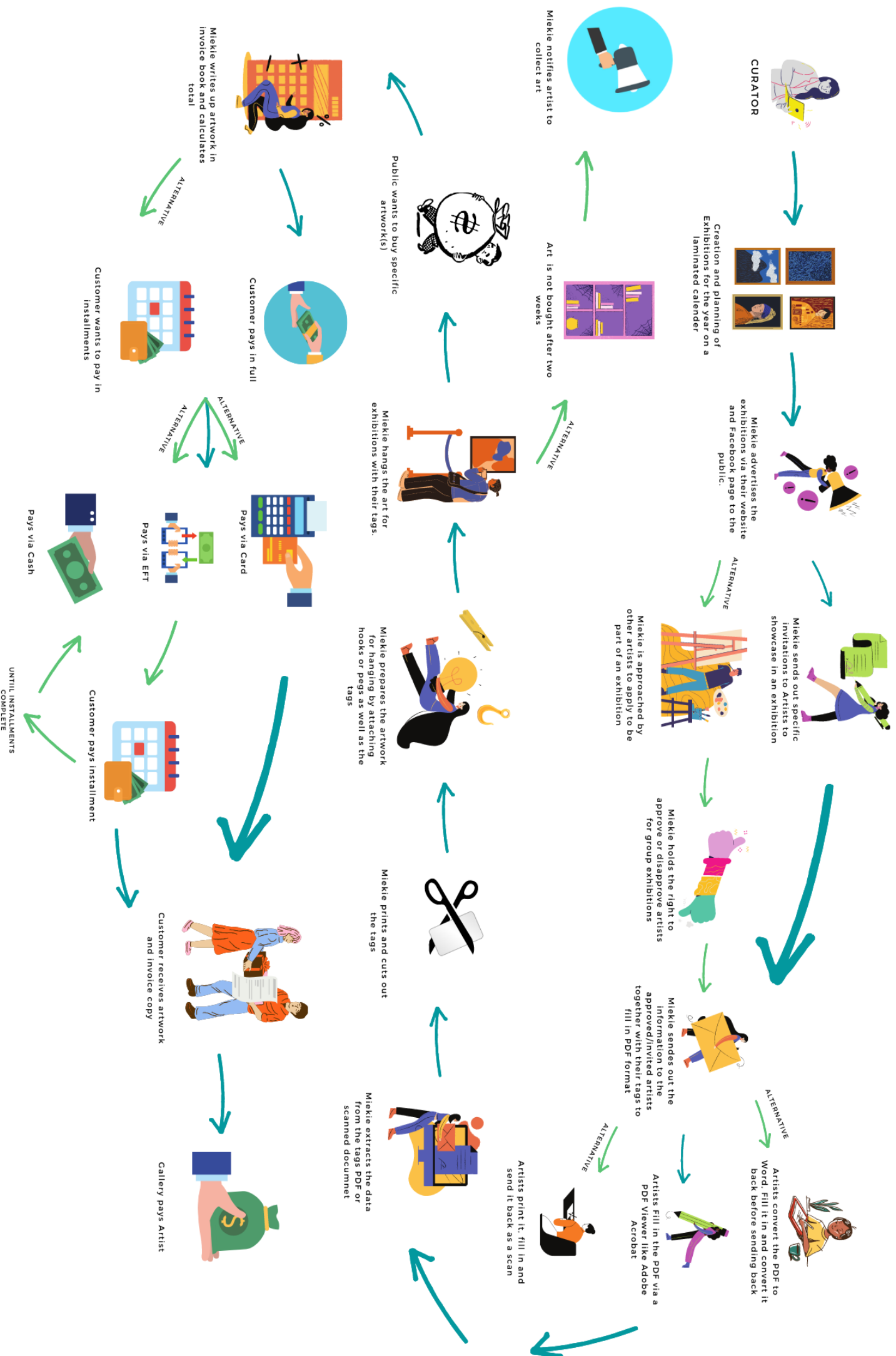
Introduction

This segment will enable Binary Brains (the team) to have a brief overview of the current system in place for Johann Van Heerden Art Gallery (the client) and point out its shortcomings, find solutions and identify loopholes that may need to be filled or modified into our fully functional proposed system.

RICH PICTURE OF CURRENT SYSTEM AT JOHANN VAN HEERDEN GALLERY (CLASSES)



**RICH PICTURE OF CURRENT SYSTEM AT
JOHANN VAN HEERDEN GALLERY (EXHIBITIONS)**





5.2 Analyzing the current system capabilities & recommendations

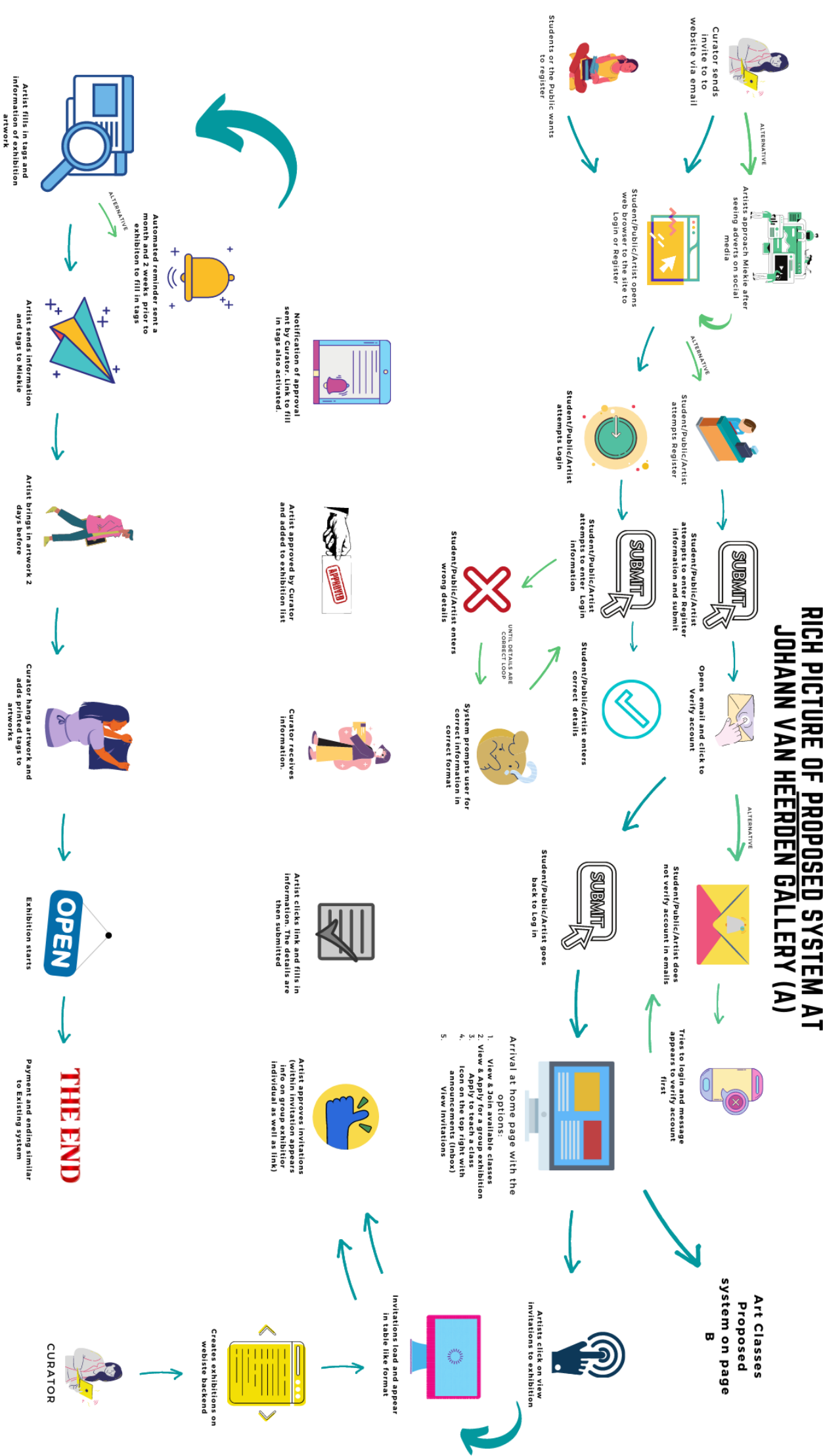
Current system's capabilities	Required system's capabilities	Capability gaps	Recommendations to address each gap
<p>1. For each exhibition, a pdf document is created and must be sent out to each artist via Email as an invitation to the exhibition. The artists must extract the pdf to Word to edit the form and enter their required details and send it back if they are interested. Each time an artist is interested in the exhibition without being invited they first need the business contact details then receive the pdf document.</p>	<p>Provide a platform where all artists can view an existing exhibition by just sending out the exhibition information once and making it accessible to all artists on the platform.</p> <p>On this platform artist can apply for the available exhibitions.</p> <p>Invitations can be sent out as a broadcast to specific artist that are on the system.</p>	<p>Each invitation is copied and pasted into a new email to send the information to the potential artists.</p> <p>When artists receive the email, they must download the pdf and extract it to a Word document to be able to edit the form and enter their details to apply for the exhibition.</p> <p>All artists must be contacted directly.</p> <p>Artist must contact Mieke to possibly apply for an exhibition.</p>	<p>Post all exhibitions on the platform to make it available to all the artists to apply.</p> <p>Artists on the system can just apply for any available exhibition on the system which will take them to a form to enter their necessary details to apply for that specific exhibition.</p> <p>Sent out a broadcast invitation message to specific selected artists on the system.</p> <p>We create a platform where artists can apply for an exhibition with a preliminary application.</p>
<p>2. Once applied for an exhibition and form is completed</p>	<p>After applying for an exhibition on the system and the Artist is approved the system generates a</p>	<p>The tag must be extracted from the pdf document and then added to another document with all</p>	<p>Each application form, from the artist that is approved generates the tag automatically and makes it available</p>

tags are extracted from the pdf document and cut out to go with the artwork.	specific number of tags to fit with the artist's work(s).	other tags for a printout.	to be print out to be added to the artwork.
3. With each exhibition a reminder gets sent out the artists, 1 month and again 2 weeks before the exhibition.	Automated reminders get sent out to the artists that are participating in the exhibition.	The reminders must be typed out and be sent directly to each artist that is participating in the exhibition.	Artists that are approved for the exhibition receives automated reminders 1 month and then again 2 weeks before the exhibition if their tags have not been sent.
4. In the process booking for art classes or request for refunds you approach Miekie through her contact details. Miekie then send back all the information of the class with her banking details to book for a class. If a user requests a refund, it can only be done before 2 days prior the class starts. 50% deposit must then be paid to confirm your booking spot. If people want to apply for a class, they do not know if it is full until	<p>Design a platform with all available classes where people can make bookings for classes. All requests for refunds will also be available on the system.</p> <p>All available classes are also open for viewing to get all necessary details on what the class entails so the users can find what they are interested in.</p> <p>Viewing a class also provides the user with the number of available seats.</p> <p>The user can automatically pay via a third-party application once payment is done. The proof of payment is sent to the student as well as full class details.</p>	<p>All users must contact Miekie to receive the form to book for a class and send it back to her via Email.</p> <p>For people to get a detail description of what the class is all about and what is require they first need to receive the form from Miekie.</p> <p>All requested refunds are done by contacting Miekie.</p> <p>User must contact Miekie to know if the class has open seats.</p> <p>Proof of deposit payments are sent individually to Miekie for confirmation, where Miekie then</p>	<p>Make it available for all users on the system to book for available classes by just booking for it on the system.</p> <p>All classes are available to be viewed by the users on the system and get all the necessary details of what the class is all about.</p> <p>Give the user the option on the system to request for a refund where Admin must approve it. Whilst keeping the user up to date with the refund process.</p> <p>The system provides an update on the number of seats available for the class.</p> <p>The user can automatically pay via a third-party application once payment is done. The</p>

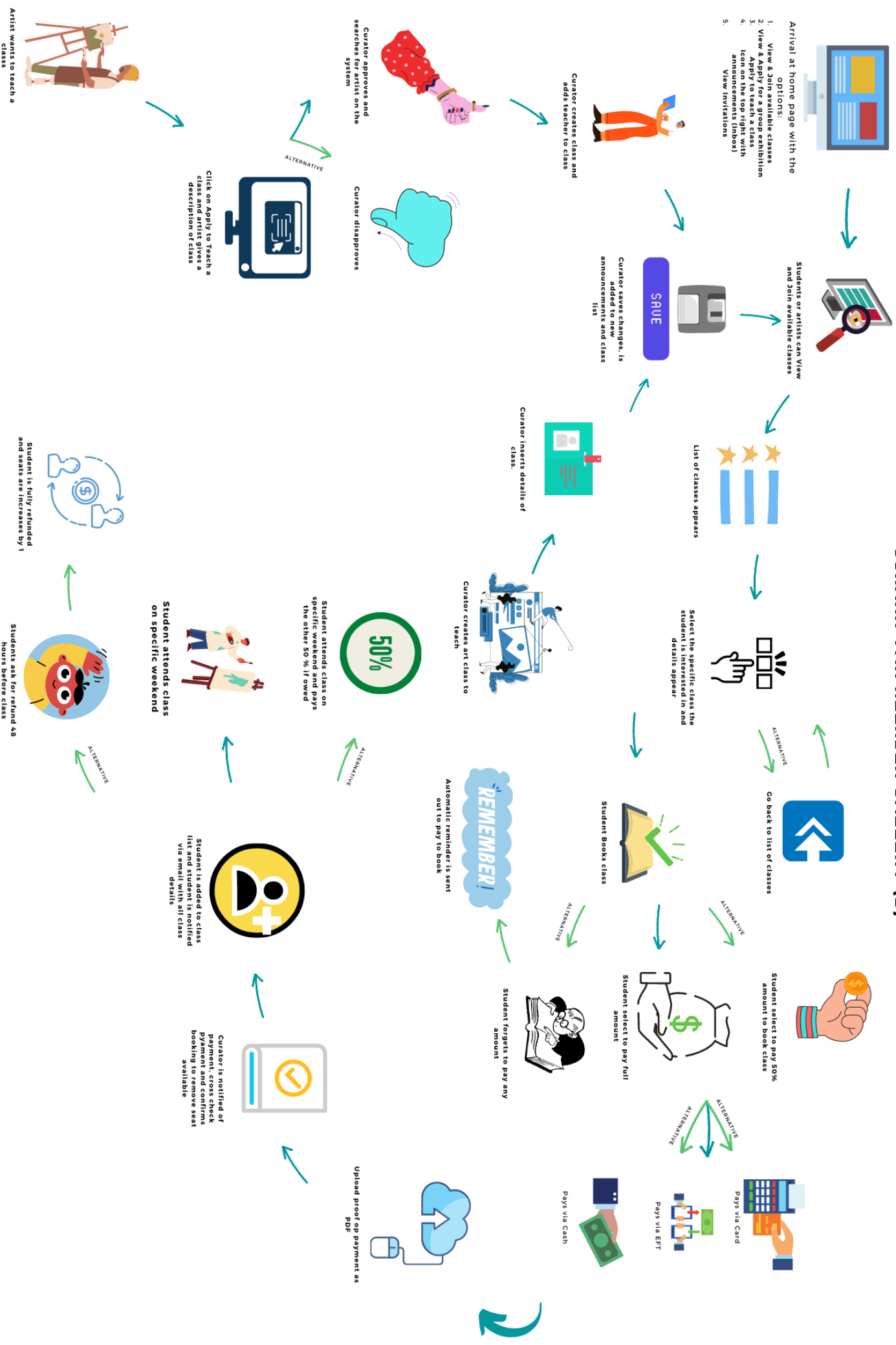


they try to book.	<p>The seats are updated to one less.</p> <p>Make all the necessary access to information on the system dealing with the bookings and proof of payments available to Miekie.</p>	replies to each message with a confirmation of payment.	proof of payment is sent to the student as well as full class details.
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**RICH PICTURE OF PROPOSED SYSTEM AT
JOHANN VAN HEERDEN GALLERY (A)**



RICH PICTURE OF PROPOSED SYSTEM AT JOHANN VAN HEERDEN GALLERY (B)





Conclusion

In conclusion Johann van Heerden's current system is too simplistic and does not allow the gallery to perform to its full capability. The current system has too much administration that can be curbed by our proposed system. The system can be fully functional online and there would be no need for too much paperwork currently overwhelming the gallery.

6. Requirement Analysis

Introduction

This segment provides the user with a guideline on how our proposed system will function when it is completed. The segment displays a list of our functional as well as our non-functional requirements for our proposed system accompanied by further details describing these requirements.

6.1 Functional Requirements:

Subsystems for Artech:



6.1.1 Admin subsystem

6.1.1.1 Approve exhibition user

6.1.1.2 Search exhibition User

6.1.1.3 Delete exhibition user

6.1.1.4 Create new Exhibition

6.1.1.5 Search Exhibition

6.1.1.6 Update Exhibition

6.1.1.7 Delete Exhibition

6.1.1.8 Add Exhibition Artwork After exhibition

6.1.1.9 Search Exhibition Artwork After Exhibition

6.1.1.10 Delete Exhibition Artwork After Exhibition

6.1.1.11 Update Exhibition Artwork After Exhibition

6.1.1.12 Create Artist exhibition Invitation

6.1.1.13 Update Tag

6.1.1.14 Print Tag

6.1.1.15 Manage Classes

6.1.1.16 Create Class

6.1.1.17 Search Class

6.1.1.18 Update Class

6.1.1.19 Delete Class

6.1.1.20 Create Class Reminder

6.1.1.21 Update Class Reminder

6.1.1.22 Delete Class Reminder

6.1.1.23 Generate payment Reminder

6.1.1.24 Add Class Teacher

6.1.1.25 Search Class Teacher

6.1.1.26 Update Class Teacher

6.1.1.27 Delete Class Teacher

6.1.1.28 Approve Booking

6.1.1.29 Search Booking

6.1.1.30 Delete Booking



6.1.1.31 View Booking Status

6.1.1.32 Create Booking Notification

6.1.1.33 Create Medium Detail

6.1.1.34 Search Medium Detail

6.1.1.35 Update Medium Detail

6.1.1.36 Delete Medium Detail

6.1.1.37 Create Artwork Detail

6.1.1.38 Search Artwork Detail

6.1.1.39 Update Artwork Detail

6.1.1.40 Delete Artwork Detail

6.1.2 Exhibition subsystem

6.1.2.1 Apply for Exhibition

6.1.2.2 View existing Exhibitions

6.1.2.3 Search existing Exhibitions

6.1.2.4 View Invitation for Exhibition

6.1.2.5 Capture tag Information

6.1.3 Art Class Subsystem

6.1.3.1 Book Art Class

6.1.3.2 View existing Classes

6.1.3.3 Search Existing Class

6.1.3.4 Cancel Booking

6.1.3.5 Make Payment

6.1.3.6 Generate booking confirmation message

6.1.3.7 View Refund information

6.1.4 Payment Subsystem

6.1.4.1 Add Payment status



6.1.5 Gallery Artwork Subsystem

6.1.5.1 Search Gallery Artwork Type

6.1.6 Reporting Subsystem

6.1.6.1 Generate Booking Report

6.1.6.2 Generate New Users Report

6.1.6.3 Generate Popular Art Class Report

6.1.7 Public User subsystem

6.1.7.1 Register User

6.1.7.2 Log in

6.1.7.3 Log out

6.1.7.4 Reset Password

6.1.7.5 Update User

6.1.7.6 View Software Guide

6.1.7.7 View Notification

6.1.7.8 Start Authentication process

6.1.8 Artist Subsystem

6.1.8.1 Apply for Exhibition

6.1.8.2 Apply to Teach Class

6.1.8.3 Add picture

6.1.8.4 Update Picture

6.1.8.5 Delete Picture

6.1.8.6 View invitation



6.1.9 Archive Subsystem

6.1.9.1 Create Archive

6.1.9.2 Search Archive

6.1.9.3 Update Archive

6.1.9.4 Delete Archive

6.1.10 Class Teacher Subsystem

6.1.10.1 Generate Information

6.1.11 Frame Subsystem

6.1.11.1 Create Frame Order

6.1.11.2 Search Frame Order

6.1.11.3 Update Frame Order

6.1.11.4 Delete Frame Order



6.2 Functional Requirements descriptions and details

6.2.1 Admin subsystem

Functional Requirement	Explanation
Requirement number:	1.1
Requirement name (use case name):	Approve Exhibition User
Requirement short description:	The system must allow the user to be added as an artist into an exhibition.
Requirement detailed description and constraints:	The Admin selects the artists suitable for the appropriate exhibition amongst the artists who have applied for an exhibition. This selection is based on the artists previous artworks that they uploaded onto the system. This selected artist must then be added to the artists list under that specific exhibition, along with their details, onto the system.
Business rules applicable to this requirement	Only artists approved by the admin may be added.
Revision date and Revision number:	2021/04/04 Version 01
Criticality/Priority:	Must

Functional Requirement	Explanation
Requirement number:	1.2
Requirement name (use case name):	Search Exhibition User
Requirement short description:	The system must allow the Admin to search for the Exhibition Users.
Requirement detailed description and constraints:	The Admin can search in the list of the artists who are part of a specific exhibition by searching for their name or simply scrolling through the lists of artists listed within that exhibition, from the system.



Business rules applicable to this requirement	Only artists approved by the admin may be searched by the admin..
Revision date and Revision number:	2021/04/04 Version 01
Criticality/Priority:	Low

Functional Requirement	Explanation
Requirement number:	1.3
Requirement name (use case name):	Delete Exhibition User
Requirement short description:	The system must allow the Admin to Delete the Exhibition Users.
Requirement detailed description and constraints:	The Admin can delete from the list of the artists who are part of a specific exhibition by selecting them or searching for them and then selecting them, and then clicking on delete. This selected artist must then be removed from the artists list under that specific exhibition from the system.
Business rules applicable to this requirement	Only artists approved by the admin may be Deleted by the admin.
Revision date and Revision number:	2021/04/04 Version 01
Criticality/Priority:	Low

Functional Requirement	Explanation
Requirement number:	1.4
Requirement name (use case name):	Create new Exhibition



Requirement short description:	The system must allow the Admin to create a new exhibition.
Requirement detailed description and constraints:	The Admin can Create a new exhibition by filling out the Exhibition name, Exhibition type, Exhibition description and the Exhibition date. All of this information is then added to the system.
Business rules applicable to this requirement	Only the Admin can Create Exhibitions.
Revision date and Revision number:	2020/04/04 Version 01
Criticality/Priority:	Must

Functional Requirement	Explanation
Requirement number:	1.5
Requirement name (use case name):	Search Exhibition
Requirement short description:	The system must allow the Admin or the user to search for Exhibitions.
Requirement detailed description and constraints:	The Admin or the user can search the exhibition list by typing in the exhibition name under the exhibition list or simply scrolling through the list of exhibitions listed within the system.
Business rules applicable to this requirement	The Admin and the users can Search for existing Exhibitions.
Revision date and Revision number:	2020/04/04 Version 01
Criticality/Priority:	Must

Functional Requirement	Explanation
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Requirement number:	1.6
Requirement name (use case name):	Update Exhibition
Requirement short description:	The system must allow the Admin to Update the Exhibition.
Requirement detailed description and constraints:	The Admin can Update an exhibition by editing the Exhibition name, Exhibition type, Exhibition description and the Exhibition date. All of these details are then changed and saved within the system.
Business rules applicable to this requirement	Only the Admin can Update Exhibitions.
Revision date and Revision number:	2020/04/04 Version 01
Criticality/Priority:	Low

Functional Requirement	Explanation
Requirement number:	1.7
Requirement name (use case name):	Delete Exhibition
Requirement short description:	The system must allow the Admin to Delete the Exhibition.
Requirement detailed description and constraints:	The Admin can delete the exhibitions listed by typing in the exhibition name under the exhibition list or simply scrolling through the list of exhibitions, selecting the exhibitions she wants to delete, and click on delete. All the information about that exhibition will then be deleted from the system.
Business rules applicable to this requirement	Only the Admin can Delete Exhibitions.



Revision date and Revision number:	2020/04/04 Version 01
Criticality/Priority:	Low

Functional Requirement	Explanation
Requirement number:	1.8
Requirement name (use case name):	Add Exhibition Artwork after Exhibition
Requirement short description:	The system must allow the admin to add an exhibition artwork.
Requirement detailed description and constraints:	The Admin can add the artworks presented in specific exhibitions onto the system by adding an image of the artwork, the description of the artwork(optional), and the artist's name(optional).
Business rules applicable to this requirement	Only the Admin can add an exhibition artwork.
Revision date and Revision number:	2020/04/04 Version 01
Criticality/Priority:	Must.



Functional Requirement	Explanation
Requirement number:	1.9
Requirement name (use case name):	Search Exhibition Artwork after exhibition
Requirement short description:	The system must allow the admin to search for an exhibition artwork.
Requirement detailed description and constraints:	The Admin can search through the artworks under a list of Exhibition Gallery where all the images and details of the uploaded artworks are present. She can search through the list by either Typing in the name of the artwork or the artist's name, or just scrolling through the list of images along with their details stored in the system
Business rules applicable to this requirement	Only the Admin can search for an exhibition artwork.
Revision date and Revision number:	2020/04/04 Version 01
Criticality/Priority:	Low.

Functional Requirement	Explanation
Requirement number:	1.10
Requirement name (use case name):	Delete Exhibition Artwork after exhibition
Requirement short description:	The system must allow the admin to delete an exhibition artwork.
Requirement detailed description and constraints:	The Admin can delete the artworks under a list of Exhibition Gallery where all the images and details of the uploaded artworks are present. She can delete by either Typing in the name of the artwork or the artist's name, or just scrolling through the list of images along with their



	details, selecting them and clicking on delete. This will delete that image and its respective details stored in the system
Business rules applicable to this requirement	Only the Admin can delete an exhibition artwork.
Revision date and Revision number:	2020/04/04 Version 01
Criticality/Priority:	Low.

Functional Requirement	Explanation
Requirement number:	1.11
Requirement name (use case name):	Update Exhibition Artwork after exhibition
Requirement short description:	The system must allow the admin to update an artwork details after exhibition.
Requirement detailed description and constraints:	The Admin can update the artworks presented in a gallery by either adding more information to that specific artwork or by uploading more images of the artwork.
Business rules applicable to this requirement	Only the Admin can update exhibition artwork.
Revision date and Revision number:	2020/04/04 Version 01
Criticality/Priority:	Low.

Functional Requirement	Explanation
Requirement number:	1.12
Requirement name (use case name):	Create artist exhibition Invitation
Requirement short description:	Details are added to an invitation by the curator. The curator can select all artist which the invitation can be sent to.



Requirement detailed description and constraints:	After clicking on Create invitation by the Curator, the system generate a tab where the curator fills in all details for an exhibition. A lookup table with a checkbox for each artist will appear to select them. These details will be formatted into an email which will be automatically sent to all the selected artists.
Business rules applicable to this requirement	The number of invitations must be limited to the amount of people selected for an exhibition
Revision date and Revision number:	2021/04/03 Version 2.0
Criticality/Priority:	High Priority

Functional Requirement	Explanation
Requirement number:	1.13
Requirement name (use case name):	Update Tag
Requirement short description:	Curator is allowed to update any tags before printing if any errors are reported by the Artists
Requirement detailed description and constraints:	The Curator has, before printing an exhibitions tags, the option to edit the tags if the Artist has reported an error. A notification will be sent to the email address that a tag has been updated with the updated details
Business rules applicable to this requirement	Only the Curator can access the Update Tag but the Artist must receive notification of it
Revision date and Revision number:	2021/04/03 Version 2.0
Criticality/Priority:	Not High

Functional Requirement	Explanation
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Requirement number:	1.14
Requirement name (use case name):	Print Tag
Requirement short description:	The tags for an exhibition can be printed after editing and confirmation that all tags are correct.
Requirement detailed description and constraints:	The tags for an exhibition can be printed after editing and confirmation that all tags are correct. The tags are grouped by exhibition and appear as a pdf.
Business rules applicable to this requirement	None
Revision date and Revision number:	2021/04/03 Version 2.0
Criticality/Priority:	High Priority

Functional Requirement	Explanation
Requirement number:	1.15
Requirement name (use case name):	Manage Classes
Requirement short description:	The system must allow the admin to manage the classes
Requirement detailed description and constraints:	The Admin can edit or update when the classes will be taking place on the calendar by updating or deleting existing classes.
Business rules applicable to this requirement	Only the Admin can manage classes.
Revision date and Revision number:	2020/04/04 Version 01
Criticality/Priority:	Low.



Functional Requirement	Explanation
Requirement number:	1.16
Requirement name (use case name):	Create Class
Requirement short description:	The system must allow the admin to create an art class.
Requirement detailed description and constraints:	The Admin can create a class by filling in the type of class, the mediums used for that class, the teachers name, availability of seats, and the price. All of these details are then added to the system.
Business rules applicable to this requirement	Only the Admin can create an art class.
Revision date and Revision number:	2020/04/04 Version 01
Criticality/Priority:	Must.

Functional Requirement	Explanation
Requirement number:	1.17
Requirement name (use case name):	Search Class
Requirement short description:	The system must allow the admin and the users to search for an art class.
Requirement detailed description and constraints:	The Admin can search for an art class by typing in the class name under the classes list or simply scrolling through the list of classes from the system.
Business rules applicable to this requirement	Only the Admin and the users can search for an art class.
Revision date and Revision number:	2020/04/04 Version 01
Criticality/Priority:	Must.



Functional Requirement	Explanation
Requirement number:	1.18
Requirement name (use case name):	Update Class
Requirement short description:	The system must allow the admin to update an art class.
Requirement detailed description and constraints:	The Admin can update a class by editing the type of class, the mediums used, the teacher's name, availability of seats, and the price. All of these details are then changed and saved within the system.
Business rules applicable to this requirement	Only the Admin can update an art class.
Revision date and Revision number:	2020/04/04 Version 01
Criticality/Priority:	Low.

Functional Requirement	Explanation
Requirement number:	1.19
Requirement name (use case name):	Delete Class
Requirement short description:	The system must allow the admin to delete an art class.
Requirement detailed description and constraints:	The Admin can delete an art class by typing in the class name under the classes list or simply scrolling through the list of classes and selecting the classes she wants to delete and clicking on delete. This class and its details will then be deleted from the system.
Business rules applicable to this requirement	Only the Admin can delete an art class.



Revision date and Revision number:	2020/04/04 Version 01
Criticality/Priority:	Must.

Functional Requirement	Explanation
Requirement number:	1.20
Requirement name (use case name):	Create Class Reminder
Requirement short description:	When creating a Class reminder, the curator adds a description to a timed reminder of class details.
Requirement detailed description and constraints:	Details are filled into a description box when creating a Class. A timer can be set for when the reminder of a class must go out. The Create Class Reminder button is available inside the Create Class Page
Business rules applicable to this requirement	Only students that are finalised for a class by paying at least 50% deposit will receive this reminder
Revision date and Revision number:	2021/04/03 Version 2.0
Criticality/Priority:	Lower Priority

Functional Requirement	Explanation
Requirement number:	1.21
Requirement name (use case name):	Update Class reminder
Requirement short description:	Details are updated for a class reminder sent to the public for a class



Requirement detailed description and constraints:	The details for a Class reminder can be updated to convey any message. The time can also be specified to be sent immediately or set another date & time
Business rules applicable to this requirement	
Revision date and Revision number:	2021/04/03 Version 2.0
Criticality/Priority:	High Priority

Functional Requirement	Explanation
Requirement number:	1.22
Requirement name (use case name):	Delete Class reminder
Requirement short description:	A class reminder is removed as well as its timing settings.
Requirement detailed description and constraints:	If a class is cancelled hence deleted these details will automatically be removed by the system
Business rules applicable to this requirement	None
Revision date and Revision number:	2021/04/03 Version 2.0
Criticality/Priority:	Lower Priority

Functional Requirement	Explanation
Requirement number:	1.23
Requirement name (use case name):	Generate Payment Reminder



Requirement short description:	When a student has provisionally booked, the system adds a description to a timed reminder of payment details and sends it to the student.
Requirement detailed description and constraints:	A timer can be set for when the reminder of a payment must go out. The Payment reminder is automatically created from the student and class details. If the
Business rules applicable to this requirement	
Revision date and Revision number:	2021/04/03 Version 2.0
Criticality/Priority:	High Priority

Functional Requirement	Explanation
Requirement number:	1.24
Requirement name (use case name):	Add class Teacher
Requirement short description:	The system must allow the admin to add a Class Teacher.
Requirement detailed description and constraints:	The admin can add a Class Teacher by filling in their name, surname, email, phone number and artwork details. All of this information is then added into the system.
Business rules applicable to this requirement	Only the Admin can add a Class Teacher.
Revision date and Revision number:	2020/04/04 Version 01
Criticality/Priority:	Must.

Functional Requirement	Explanation
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Requirement number:	1.25
Requirement name (use case name):	Search class Teacher
Requirement short description:	The system must allow the admin to search for a Class Teacher.
Requirement detailed description and constraints:	The Admin can search for a teacher by typing in their name under the teachers list or simply scrolling through the list of teachers from the system.
Business rules applicable to this requirement	Only the Admin can search for a Class Teacher.
Revision date and Revision number:	2020/04/04 Version 01
Criticality/Priority:	Must.

Functional Requirement	Explanation
Requirement number:	1.26
Requirement name (use case name):	Update class Teacher
Requirement short description:	The system must allow the admin to update a Class Teacher.
Requirement detailed description and constraints:	The admin can update a Class Teacher by editing their name, surname, email, phone number and artwork details. All of this information is then changed and saved within the system.
Business rules applicable to this requirement	Only the Admin can update a Class Teacher.
Revision date and Revision number:	2020/04/04 Version 01
Criticality/Priority:	Must.



Functional Requirement	Explanation
Requirement number:	1.27
Requirement name (use case name):	Delete class Teacher
Requirement short description:	The system must allow the admin to delete a Class Teacher.
Requirement detailed description and constraints:	The Admin can delete a teacher by typing in their name under the teachers list and selecting them, or simply scrolling through the list of teachers from the system and selecting them to be deleted. The selected teacher and their details will then be deleted from the system once clicked on Delete.
Business rules applicable to this requirement	Only the Admin can delete a Class Teacher.
Revision date and Revision number:	2020/04/04 Version 01
Criticality/Priority:	Must.

Functional Requirement	Explanation
Requirement number:	1.28
Requirement name (use case name):	Approve Booking
Requirement short description:	The system must allow the Admin to approve a Booking.
Requirement detailed description and constraints:	The Admin can approve all the bookings based on whether the payments have been made or not. Once the booking is approved a seat will be reduced from the available bookings list.
Business rules applicable to this requirement	Only the Admin can Approve Bookings
Revision date and Revision number:	2020/04/04 Version 01



Criticality/Priority:	Must
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Functional Requirement	Explanation
Requirement number:	1.29
Requirement name (use case name):	Search Booking
Requirement short description:	The system must allow the Admin to search for the bookings.
Requirement detailed description and constraints:	The Admin can search for the number of bookings made per class by clicking on the Bookings tab in order to approve them.
Business rules applicable to this requirement	Only the Admin can Search for Bookings.
Revision date and Revision number:	2020/04/04 Version 01
Criticality/Priority:	Must

Functional Requirement	Explanation
Requirement number:	1.30
Requirement name (use case name):	Delete Booking
Requirement short description:	The system must allow the admin to delete an existing class booking.
Requirement detailed description and constraints:	The system allows the admin to delete an existing class booking with all its details from the system. Once confirmation to delete the booking all information of that class booking will be completely removed
Business rules applicable to this requirement	Only admin can delete a class booking.



Revision date and Revision number:	2021-04-12 Version 1.0
Criticality/Priority:	Must

Functional Requirement	Explanation
Requirement number:	1.31
Requirement name (use case name):	View Booking Status
Requirement short description:	The system allows the admin to look at the booking status
Requirement detailed description and constraints:	Once a booking is up and online the system allows the admin to view the booking status to see all relevant information regarding how many seats are available and the art teacher details.
Business rules applicable to this requirement	Only admin can view booking status
Revision date and Revision number:	2021-04-12 Version 1.0
Criticality/Priority:	Must

Functional Requirement	Explanation
Requirement number:	1.32
Requirement name (use case name):	Create Booking Notification
Requirement short description:	The system allows the admin to create a booking notification
Requirement detailed description and constraints:	<p>The admin can create a notification regarding information about the art classes and generate it to all the users who applied for the art class. The notifications share the information of:</p> <ul style="list-style-type: none"> • Type of Art class • Description of art class • The Teacher



	<ul style="list-style-type: none"> Stationary required. Date and Time <p>All users who applied for the class will receive the notification.</p>
Business rules applicable to this requirement	<p>Only admin can create a booking notification.</p> <p>Can only be sent to users who applied for the class.</p>
Revision date and Revision number:	2021-04-12 Version 1.0
Criticality/Priority:	Must
Functional Requirement	Explanation
Requirement number:	1.33
Requirement name (use case name):	Create Medium Detail
Requirement short description:	The system will allow admin to create a new medium.
Requirement detailed description and constraints:	<p>This will allow admin to create a new medium with all the relevant details. All information to be entered must be:</p> <ul style="list-style-type: none"> Medium type Medium type description Artwork details Artist Name. <p>It will then be added onto the system with all the correct details in the desired format.</p>
Business rules applicable to this requirement	<p>Only Admin can create Medium.</p> <p>The medium must not already exist in the system.</p>
Revision date and Revision number:	2021-04-12 Version 1.0
Criticality/Priority:	Must

Functional Requirement	Explanation
Requirement number:	1.34
Requirement name (use case name):	Search Medium Detail



Requirement short description:	The system will allow the admin to search for a specific medium.
Requirement detailed description and constraints:	This will allow the admin to search for any specific medium that has been created on the system. The medium must already exist to be able to search. Providing the right search criteria with the correct information such as Medium Type enables the system to find the match to the admins search details.
Business rules applicable to this requirement	Only admin can search for a Medium. A medium must exist on the system to be found.
Revision date and Revision number:	2021-04-12 Version 1.0
Criticality/Priority:	Must

Functional Requirement	Explanation
Requirement number:	1.35
Requirement name (use case name):	Update Medium Detail
Requirement short description:	The system will allow admin to update an existing medium.
Requirement detailed description and constraints:	<p>The system allows the admin to update an existing medium with new details. The details to be changed can be</p> <ul style="list-style-type: none"> • Medium type • Medium type description <ul style="list-style-type: none"> • Artwork details • Artist Name. <p>The new updated details of the medium shall be added to the system.</p>
Business rules applicable to this requirement	Only admin can update a Medium. A medium must exist on the system to be updated.
Revision date and Revision number:	2021-04-12 Version 1.0
Criticality/Priority:	Must



Functional Requirement	Explanation
Requirement number:	1.36
Requirement name (use case name):	Delete Medium Detail
Requirement short description:	The system will allow the admin to delete a medium from the system.
Requirement detailed description and constraints:	<p>The system allows the admin to delete an existing system with all its details form the system. All relevant information of that medium such as:</p> <ul style="list-style-type: none"> • Medium type • Medium type description • Artwork details • Artist Name <p>All information of that medium will be completely removed.</p>
Business rules applicable to this requirement	Only admin can delete a Medium from the system.
Revision date and Revision number:	2021-04-12 Version 1.0
Criticality/Priority:	Must

Functional Requirement	Explanation
Requirement number:	1.37
Requirement name (use case name):	Create Artwork Detail
Requirement short description:	The system will allow admin to create new Artwork details.
Requirement detailed description and constraints:	<p>This will allow admin to create new Artwork details with all the relevant details. All information to be entered must be:</p> <ul style="list-style-type: none"> • Artwork Name • Artwork description • Artist Name • Exhibition details



	It will then be added onto the system with all the correct details in the desired format.
Business rules applicable to this requirement	Only Admin can create a new Artwork with details. The Artwork must not already exist in the system.
Revision date and Revision number:	2021-04-12 Version 1.0
Criticality/Priority:	Must

Functional Requirement	Explanation
Requirement number:	1.38
Requirement name (use case name):	Search Artwork Detail
Requirement short description:	The system will allow the admin to search for a specific Artwork.
Requirement detailed description and constraints:	This will allow the admin to search for any specific Artwork that has been created on the system. The Artwork details must already exist to be able to search. Providing the right search criteria with the correct information such as Artwork Name enables the system to find the match to the admins search details.
Business rules applicable to this requirement	Only admin can search for Artwork. Artwork must exist on the system to be found.
Revision date and Revision number:	2021-04-12 Version 1.0
Criticality/Priority:	Must

Functional	Explanation
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Requirement	
Requirement number:	1.39
Requirement name (use case name):	Update Artwork Detail
Requirement short description:	The system will allow admin to update an existing Artwork.
Requirement detailed description and constraints:	<p>The system allows the admin to update an existing Artwork with new details. The details to be changed can be:</p> <ul style="list-style-type: none"> • Artwork Name • Artwork description • Artist Name • Exhibition details <p>The new updated details of the Artwork shall be added to the system.</p>
Business rules applicable to this requirement	<p>Only admin can update Artwork details.</p> <p>Artwork must exist on the system to be updated.</p>
Revision date and Revision number:	2021-04-12 Version 1.0
Criticality/Priority:	Must

Functional Requirement	Explanation
Requirement number:	1.40
Requirement name (use case name):	Delete Artwork Detail
Requirement short description:	The system will allow the admin to delete an Artwork from the system.
Requirement detailed description and constraints:	<p>The system allows the admin to delete an existing Artwork with all its details form the system. All relevant information of that Artwork such as:</p> <ul style="list-style-type: none"> • Artwork Name • Artwork description • Exhibition details • Artist Name <p>All information of that Artwork will be completely removed.</p>



Business rules applicable to this requirement	Only admin can delete Artwork with all its details from the system.
Revision date and Revision number:	2021-04-12 Version 1.0
Criticality/Priority:	Must

6.2.2 Admin subsystem

Functional Requirement	Explanation
Requirement number:	2.1
Requirement name (use case name):	Apply for Exhibition
Requirement short description:	The system must allow the user to apply for an existing exhibition
Requirement detailed description and constraints:	For the user to apply for an exhibition they must complete a form on the system to enter all necessary details such as their artist



	biography and pictures of art they made to prove they are qualified for the exhibition.
Business rules applicable to this requirement	Only artists can apply for exhibitions. The artist must be signed into their accounts and registered onto the system to be able to apply for an exhibition.
Revision date and Revision number:	2021-04-12 Version 1.0
Criticality/Priority:	Must

Functional Requirement	Explanation
Requirement number:	2.2
Requirement name (use case name):	View existing exhibition
Requirement short description:	The system must allow the user to view any existing exhibition
Requirement detailed description and constraints:	The user must be signed into their accounts and registered onto the system to be able click and view any exhibition that has been posted by the Admin on the system to be able to see all details of an exhibition.
Business rules applicable to this requirement	User must be logged onto the system. An exhibition must be made and posted on the system.
Revision date and Revision number:	2021-04-12 Version 1.0
Criticality/Priority:	High

Functional Requirement	Explanation
Requirement number:	2.3
Requirement name (use case name):	Search existing exhibitions



Requirement short description:	The system must allow the user to search for a specific exhibition.
Requirement detailed description and constraints:	Once the user is signed into their accounts the system must allow them to be able to search an exhibition by entering a certain search criterion such as, Name or theme to find a match and return results based on the search information.
Business rules applicable to this requirement	An exhibition must be made and posted on the system.
Revision date and Revision number:	2021-04-12 Version 1.0
Criticality/Priority:	High

Functional Requirement	Explanation
Requirement number:	2.4
Requirement name (use case name):	View Invitation for exhibition
Requirement short description:	The system allows the user to view an invitation they received on their account.
Requirement detailed description and constraints:	The system allows the user to view any invitation they have received on the system. On the invitation it provides the user with all the necessary details of the exhibition they are being invited to. The user can then accept or decline the invitation. Once accepted they will not need to apply but will immediately be added to the list of artists that will be at the exhibition.
Business rules applicable to this requirement	Only artists can receive an invitation.
Revision date and Revision number:	2021-04-12 Version 1.0
Criticality/Priority:	High



Functional Requirement	Explanation
Requirement number:	2.5
Requirement name (use case name):	Capture Tag information
Requirement short description:	System must generate a tag that captures all necessary details of artist.
Requirement detailed description and constraints:	After artists applies for an exhibition, the Admin curates the form and approves or declines the application. Once an application is approved a tag gets generated to capture a summary of all the necessary information of the artist details: Artist Name, Title, Medium, Size and price.
Business rules applicable to this requirement	An artist must first apply for an exhibition. Only Admin can approve to generate a tag.
Revision date and Revision number:	2021-04-12 Version 1.0
Criticality/Priority:	High

6.2.3 Admin subsystem

Functional Requirement	Explanation
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Requirement number:	3.1
Requirement name (use case name):	Book art class
Requirement short description:	The system must allow the user to book for a class
Requirement detailed description and constraints:	The user selects the class they want to book. The system will then prompt the user to make a 50% deposit to confirm booking position.
Business rules applicable to this requirement	A 50% deposit payment must be made to confirm booking place. User must be registered and logged onto the system
Revision date and Revision number:	2021-04-12 Version 1.0
Criticality/Priority:	Must

Functional Requirement	Explanation
Requirement number:	3.2
Requirement name (use case name):	View Existing classes
Requirement short description:	The system must allow the user to view all details of a class
Requirement detailed description and constraints:	The user selects whichever class is on the system that was created and posted on the system by the Admin. Viewing the class provides the user with more details of that class including at what time the class starts, what stationary will be required and what skill level the class is at.
Business rules applicable to this requirement	Must be logged onto the system. Class must be posted on system by Admin
Revision date and Revision number:	2021-04-12 Version 1.0
Criticality/Priority:	Must

Functional	Explanation
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Requirement	
Requirement number:	3.3
Requirement name (use case name):	Search existing class
Requirement short description:	The system must allow the user to search for a specific class
Requirement detailed description and constraints:	The user enters a search criterion to find a match with a class posted on the system by using information such as class Name, Theme and Medium Type.
Business rules applicable to this requirement	Must be logged onto the system. The Class must be posted on the system.
Revision date and Revision number:	2021-04-12 Version 1.0
Criticality/Priority:	High

Functional Requirement	Explanation
Requirement number:	3.4
Requirement name (use case name):	Cancel Booking
Requirement short description:	The system must allow the user to cancel their class booking
Requirement detailed description and constraints:	The user selects cancel booking on an existing class they signed up for to remove their seat from that Class table to open a place for other potential users.
Business rules applicable to this requirement	Must be logged onto the system. User must have a class booked. User can not cancel booking 48 hours before class.
Revision date and Revision number:	2021-04-12 Version 1.0
Criticality/Priority:	Must



Functional Requirement	Explanation
Requirement number:	3.5
Requirement name (use case name):	Make Payment
Requirement short description:	The system must allow the user to make a payment after booking their class
Requirement detailed description and constraints:	Once the user is done with booking their class, they are prompted to make a payment in full or just a 50% deposit to confirm their seat. The user takes and use Johann van Heerden's Art Gallery Banking details to make the payment. Once payment is made their seat is confirmed.
Business rules applicable to this requirement	User must first make their booking.
Revision date and Revision number:	2021-04-12 Version 1.0
Criticality/Priority:	Must

Functional Requirement	Explanation
Requirement number:	3.6
Requirement name (use case name):	Generate Booking confirmation Message
Requirement short description:	After the user books for a class a confirmation message is generated and sent to the user.
Requirement detailed description and constraints:	Once the user has made a payment, they are provided with a confirmation message indicating details that their payments was successful and that their seat is now confirmed on the system.
Business rules applicable to this requirement	User must have made a booking and paid a 50% deposit or the full amount.



Revision date and Revision number:	2021-04-12 Version 1.0
Criticality/Priority:	Must

Functional Requirement	Explanation
Requirement number:	3.7
Requirement name (use case name):	View Refund information
Requirement short description:	The system must allow the user to view details of their class refund
Requirement detailed description and constraints:	The system allows the user to view the refund options and details about their class
Business rules applicable to this requirement	Must be logged onto the system. The user must have a class booked. User can only refund until 2 days before class.
Revision date and Revision number:	2021-04-12 Version 1.0
Criticality/Priority:	Must

6.2.4 Payment subsystem

Functional Requirement	Explanation
Requirement number:	4.1
Requirement name (use case name):	Add Payment Status
Requirement short description:	The Curator can add a payment status to a booking.
Requirement detailed description and constraints:	The Curator can add a description of the status of payment either In Progress, Deposit Paid, or Fully Paid to keep track of payments in



	printouts. This is available with each Student for a Class that is booked for a class.
Business rules applicable to this requirement	Payment status can only be available for a student who has booked for a class
Revision date and Revision number:	2021/04/03 Version 2.0
Criticality/Priority:	High Priority

6.2.5 Gallery Artwork subsystem

Functional Requirement	Explanation
Requirement number:	5.1
Requirement name (use case name):	Search Gallery Artwork Type
Requirement short description:	The system has a function to search all artworks that are currently in the gallery.
Requirement detailed description and constraints:	Any User has the function to Search the Gallery by Artwork name, medium, artists. These are filters which the search can be customised to. The user types in his/her search and clicks on the Search button. All artworks currently in the Gallery with these parameters will show in a table format
Business rules applicable to this requirement	The Art must currently be hanging in the system.
Revision date and Revision number:	2021/04/03 Version 2.0
Criticality/Priority:	Must



6.2.6 Reporting subsystem

Functional Requirement	Explanation
Requirement number:	6.1
Requirement name (use case name):	Generate Booking Report
Requirement short description:	The use case describes the event where the Admin wants to generate a booking report within a certain timeframe.
Requirement detailed description and constraints:	The use case starts when the Admin wants to generate a report. The system then retrieves the Booking information and displays the structure growth over a certain period which is determined by the number of bookings made within the structure. The Admin can then generate the report as an external document. This use case concludes when the report is saved as an external document.
Business rules applicable to this requirement	Only administrators will have access to generate booking reports.
Revision date and Revision number:	2021/04/03 Version 2.0
Criticality/Priority:	Must

Functional Requirement	Explanation
Requirement number:	6.2
Requirement name (use case name):	Generate New Users Report
Requirement short description:	The use case describes the event where the Admin wants to generate a report of a number of accounts registered within a certain timeframe.
Requirement detailed description and constraints:	The use case starts when the Admin wants to generate a new users' report. The system then retrieves a new users' report information and displays the structure growth over a certain period which is determined by the number of accounts registered made within the structure. The Admin can then generate the report as an



	external document. This use case concludes when the report is saved as an external document.
Business rules applicable to this requirement	Only administrators will have access to generate a new users' report.
Revision date and Revision number:	2021/04/03 Version 2.0
Criticality/Priority:	Must

Functional Requirement	Explanation
Requirement number:	6.3
Requirement name (use case name):	Generate Popular Art Class Report
Requirement short description:	The use case describes the event where the Admin wants to generate an art report of the type of art class most attended/popular within a certain time frame.
Requirement detailed description and constraints:	The use case starts when the Admin wants to generate a 'popular art report'. The system then retrieves the 'popular art report' information and displays the structure growth over a certain period which is determined by the number of the type of art classes most attended/popular made within the structure. The Admin can then generate the report as an external document. This use case concludes when the report is saved as an external document.
Business rules applicable to this requirement	Only administrators will have access to generate a 'popular art report'
Revision date and Revision number:	2021/04/03 Version 2.0
Criticality/Priority:	Must



6.2.7 Public User subsystem

Functional Requirement	Explanation
Requirement number:	7.1
Requirement name (use case name):	Register User
Requirement short description:	The system should allow the person to request to become a registered user.
Requirement detailed description and constraints:	<p>The system must allow a person to register as a new user into the system. The person who wants to register will be prompted to enter their personal details. The person will then enter their personal details and the system will capture these details. User details will be stored in the database as follows:</p> <ul style="list-style-type: none"> • Name • Surname • User role • Email • Cell phone number • Username • Password <p>All fields should be validated for correct data input. The user shouldn't already exist in the system.</p>
Business rules applicable to this requirement	Only authorised users of the system can be registered.
Revision date and Revision number:	2021/04/03 Version 2.0
Criticality/Priority:	Must



Functional Requirement	Explanation
Requirement number:	7.2
Requirement name (use case name):	Login User
Requirement short description:	A user of the system must be able to login to the system.
Requirement detailed description and constraints:	<ul style="list-style-type: none"> Username and password entered is compared with the username and password stored in the database to determine user access. User role should be determined upon login to assign correct user access rights.
Business rules applicable to this requirement	Only authorised, registered users of the system should be able to access the system.
Revision date and Revision number:	2021/04/03 Version 2.0
Criticality/Priority:	Must

Functional Requirement	Explanation
Requirement number:	7.3
Requirement name (use case name):	Logout User
Requirement short description:	A user of the system must be able to logout of the system.



Requirement detailed description and constraints:	<ul style="list-style-type: none"> User will select the logout option given on the system interface to end their current session. Login page will be displayed for the next session.
Business rules applicable to this requirement	The User must be logged in first.
Revision date and Revision number:	2021/04/03 Version 2.0
Criticality/Priority:	Must

Functional Requirement	Explanation
Requirement number:	7.4
Requirement name (use case name):	Reset Password
Requirement short description:	User will be able to reset their password using the systems interface.
Requirement detailed description and constraints:	<ul style="list-style-type: none"> User will be able to reset/change their password using the system interface. Authentication will take place to ensure the validity of the user
Business rules applicable to this requirement	Only existing users can reset their password.
Revision date and Revision number:	2021/04/03 Version 2.0
Criticality/Priority:	Must



Functional Requirement	Explanation
Requirement number:	7.5
Requirement name (use case name):	Update User
Requirement short description:	System Admin must have the ability to update user information/details.
Requirement detailed description and constraints:	<ul style="list-style-type: none"> Admin will utilise the system interface to update user info/details. Only admins have the ability to update user info/details.
Business rules applicable to this requirement	System will only allow admin to modify user info/details.
Revision date and Revision number:	2021/04/03 Version 2.0
Criticality/Priority:	Must

Functional Requirement	Explanation
Requirement number:	7.7
Requirement name (use case name):	View Notification
Requirement short description:	The system must allow users to view their notifications



Requirement detailed description and constraints:	The use case describes the event where the user wants to view the notifications from the system. The use case begins where the user selects to view notifications. The system will conclude by showing the user all the notifications appearing from the system with various contents.
Business rules applicable to this requirement	System will only allow registered users to view their notifications.
Revision date and Revision number:	2021/04/03 Version 2.0
Criticality/Priority:	Must

Functional Requirement	Explanation
Requirement number:	7.6
Requirement name (use case name):	View Software Guide
Requirement short description:	The Admin can be able to view the software guide
Requirement detailed description and constraints:	The use case describes the event where a Pastor wants to view the software guide. This use case begins where the admin will wish to view the software guide
Business rules applicable to this requirement	Only the admin can view the software
Revision date and Revision number:	2021/04/03 Version 2.0
Criticality/Priority:	Must

Functional Requirement	Explanation
Requirement number:	7.8
Requirement name (use case name):	Start Authentication process
Requirement short description:	The system should allow a user to authenticate his/her credentials.



Requirement detailed description and constraints:	The use case describes the event where a user wants to authenticate his/her password. This use case begins where the system asks the user if they want to authenticate their password. A list of authentication options are provided i.e., Google authentication and the user selects the option they would like to use
Business rules applicable to this requirement	Only registered users are enabled to authenticate their passwords.
Revision date and Revision number:	2021/04/03 Version 2.0
Criticality/Priority:	Must

6.2.8 Artist subsystem

Functional Requirement	Explanation
Requirement number:	8.1
Requirement name (use case name):	Apply for an Exhibition
Requirement short description:	The system must allow artists to apply for an exhibition .
Requirement detailed description and constraints:	The use case describes the event where the artist wants to apply for an exhibition. The use case begins where the artist selects an exhibition, he/she would like to be part of. The system will conclude when the admin has approved the artist to become part of the particular exhibition that they applied for.
Business rules applicable to this requirement	System will only allow registered artists to apply for an exhibition. The admin will approve whether or not the art forms part of that particular exhibition
Revision date and Revision number:	2021/04/03 Version 2.0
Criticality/Priority:	Must



Functional Requirement	Explanation
Requirement number:	8.2
Requirement name (use case name):	Apply to teach class
Requirement short description:	The system must allow for art teachers to apply for teaching art classes
Requirement detailed description and constraints:	The use case describes the event where an art teacher who already on the system or an external one can apply to teach art classes. The use case begins where an external/internal art teacher selects an option to apply to teach an art class. The system will conclude when the admin has approved the internal artist (already on the system) or the external art (from outside the system) to teach an art class.
Business rules applicable to this requirement	System will only allow the admin to admit artists to teach an art class
Revision date and Revision number:	2021/04/03 Version 2.0
Criticality/Priority:	Must

Functional Requirement	Explanation
Requirement number:	8.3
Requirement name (use case name):	Add picture
Requirement short description:	The system must allow artists to add a picture unto the system. The system prompts the artist to select the picture he/she wants to add from his/her device. Once the picture has been selected, the picture will be added. The artist will receive a message notifying him/her that his/her picture has been added.



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Requirement detailed description and constraints:	This use case occurs when the system artist wishes to add a picture into the system.
Business rules applicable to this requirement	System will only allow registered artists to add their pictures.
Revision date and Revision number:	2021/04/03 Version 2.0
Criticality/Priority:	Must

Functional Requirement	Explanation
Requirement number:	8.4
Requirement name (use case name):	Update Picture
Requirement short description:	The system must allow the artist to update his/her picture
Requirement detailed description and constraints:	The artist wants to update his/her picture. The system prompts the artist to select the picture he/she wants to update from his/her device. Once the picture has been selected, the picture will be updated. The artist will receive a message notifying him/her that his/her picture has been updated.
Business rules applicable to this requirement	System will only allow registered artists to update their pictures
Revision date and Revision number:	2021/04/03 Version 2.0
Criticality/Priority:	Must



Functional Requirement	Explanation
Requirement number:	8.5
Requirement name (use case name):	Delete Picture
Requirement short description:	The system must allow the artist to delete his/her picture
Requirement detailed description and constraints:	The artist wants to delete his/her picture. The system prompts the artist to select the picture he/she wants to delete from the system. Once the picture has been selected, the picture will be deleted. The artist will receive a message notifying him/her that his/her picture has been deleted.
Business rules applicable to this requirement	System will only allow registered artists to delete their pictures.
Revision date and Revision number:	2021/04/03 Version 2.0
Criticality/Priority:	Must

Functional Requirement	Explanation
Requirement number:	8.6
Requirement name (use case name):	View Invitation
Requirement short description:	The system must allow the artist to view an invitation that has been sent to them.



Requirement detailed description and constraints:	If an invitation exists with the ID of an artist then the artist can view the message. Once the message is viewed the Viewed attribute of the message is changed to true.
Business rules applicable to this requirement	System will only allow registered artists to view their invitations.
Revision date and Revision number:	2021/04/03 Version 2.0
Criticality/Priority:	Must

6.2.9 Archive subsystem

Functional Requirement	Explanation
Requirement number:	9.1
Requirement name (use case name):	Create Archive
Requirement short description:	The process allows the system administrator Miekie to create an archive of artwork that has not been picked up from the gallery.
Requirement detailed description and constraints:	All the artwork details, including title, name, and surname of the owner of the artwork, cell number, physical address and email address of artwork that belongs to the person the that has not picked up their art in the allocated time at the studio must be added to system.
Business rules applicable to this requirement	Only artists who have not picked up their artwork must be added.
Revision date and Revision number:	2021-04-06 Version 1.0
Criticality/Priority:	Must

Functional Requirement	Explanation
Requirement number:	9.2
Requirement name (use case name):	Search Archive



Requirement short description:	This process allows the system administrator to search for archives of the artwork that was not collected, in the system. This may be to retrieve its details or update some details.
Requirement detailed description and constraints:	The system administrator will search the name of the artwork the person belongs to and that will retrieve the artwork details, including title, name, and surname of the owner of the artwork, cell number, physical address and email address of artwork that belongs to the person the that has not picked up their art in the allocated time at the studio.
Business rules applicable to this requirement	Only the admin can search archives she had added into the system.
Revision date and Revision number:	2021-04-06 Version 1.0
Criticality/Priority:	Medium

Functional Requirement	Explanation
Requirement number:	9.3
Requirement name (use case name):	Update Archive
Requirement short description:	The system administrator, Miekie to update the details of archive of artwork that has been already added onto the system.
Requirement detailed description and constraints:	The system administrator should be able to update details, including title, initials, surname, cell number and email address and physical address must be updated on the system.
Business rules applicable to this requirement	The system administrator should be able to update the details of the archive of the artwork like the artwork details, including title, name, and surname of the owner of the artwork, cell number, physical address and email address of artwork that belongs to the person the that has not picked up their art in the allocated time at the studio.
Revision date and Revision number:	2021-04-06 Version 1.0
Criticality/Priority:	Low

Functional	Explanation
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Requirement	
Requirement number:	9.4
Requirement name (use case name):	Delete Archive
Requirement short description:	This process allows the system administrator, Miekie to Delete the archive of the artwork that an artist has not picked up from the studio.
Requirement detailed description and constraints:	All client details, including title, initials, surname, cell number and email address must be deleted from the system.
Business rules applicable to this requirement	Only clients approved by the manager may be added.
Revision date and Revision number:	2021-04-06 Version 1.0
Criticality/Priority:	Low

6.2.10 Class Teacher subsystem

Functional Requirement	Explanation
Requirement number:	10.1
Requirement name (use case name):	Generate Information
Requirement short description:	This process is where a user who wants to be art class teacher clicks on a tag on the system called art class and it will display information details of the owner- Miekie; her name, surname, cell number, the email address, the physical address of the art gallery and the trading times.
Requirement detailed description and constraints:	Any user on the system should be able to click on the tag to open the information on who to contact and how to become an art class teacher.
Business rules applicable to this requirement	The system administrator should be able to update the details of the archive of the artwork like the artwork details, including title, name, and surname of the owner of the artwork, cell number, physical address and email address of artwork that belongs to the person the that has not picked up their art in the allocated time at the studio.



Revision date and Revision number:	2021-04-06 Version 1.0
Criticality/Priority:	Medium

6.2.11 Public User subsystem

Functional Requirement	Explanation
Requirement number:	11.1
Requirement name (use case name):	Create Frame Order
Requirement short description:	After a client had ordered and paid for a framework on the art gallery premises, Miekie will add the details of the frame order into the system to generate reference number. She adds the frame order details like buyer's title, artwork, size of artwork, name and surname, cell number, email address, physical address.
Requirement detailed description and constraints:	All the details of the buyer who purchased the frame, including title, name and surname, cell number, physical address, and email address of the buyer of the frame must be added into the system in order to generate the unique number.
Business rules applicable to this requirement	The sale of the frame happens on the art gallery premises; the owner Miekie adds the frame order details.
Revision date and Revision number:	2021-04-06 Version 1.0
Criticality/Priority:	Must



Functional Requirement	Explanation
Requirement number:	11.2
Requirement name (use case name):	Generate Frame Order Reference Number
Requirement short description:	This is the process where the system administrator generates the reference order of the frame order.
Requirement detailed description and constraints:	All the details of the of the frame order stored into the system will enable the administrator to generate a reference number for that specific frame order.
Business rules applicable to this requirement	The frame order should exist on the system and the purchase should happen on the Johan van Heerden art premises.
Revision date and Revision number:	2021-04-06 Version 1.0
Criticality/Priority:	Must

Functional Requirement	Explanation
Requirement number:	11.3
Requirement name (use case name):	Search Frame Order
Requirement short description:	This process allows the system administrator – Miekie, to search for a Frame order from the Frame orders that she has created in the system already. She can simply retrieve the frame order she is looking for using the reference number generated for the frame order.
Requirement detailed description and constraints:	The reference number generated on the system after creating a frame order.
Business rules applicable to this requirement	The frame order must be added to the system and have a reference number.
Revision date and Revision number:	2021-04-06 Version 1.0
Criticality/Priority:	Medium



Functional Requirement	Explanation
Requirement number:	11.4
Requirement name (use case name):	Update Frame Order
Requirement short description:	This process allows the system administrator to update the details of the Frame order that she has already added into the system.
Requirement detailed description and constraints:	All the details of the frame order, like details like buyer's title, artwork, size of artwork, name and surname, cell number, email address, physical address, that was saved when creating the frame order details.
Business rules applicable to this requirement	The frame order must be added to the system and have a reference number.
Revision date and Revision number:	2021-04-06 Version 1.0
Criticality/Priority:	Low

Functional Requirement	Explanation
Requirement number:	11.5
Requirement name (use case name):	Delete Frame Order
Requirement short description:	This process allows the system administrator to delete a frame order from the system.
Requirement detailed description and constraints:	All the details of the frame order, like details like buyer's title, artwork, size of artwork, name and surname, cell number, email address, physical address, that was saved when creating the frame order details and the reference number.
Business rules applicable to this requirement	The frame order must already be on the system and have a reference number.



Revision date and Revision number:	2021-04-06 Version 1.0
Criticality/Priority:	Low

6.4 Non-Functional Requirements

Requirement	Explanation
Number:	1
Title:	Scalability



Text:	The system should be scalable in terms of the number of users it can handle, as well as ensure capability of the system or process to handle an enhanced level of operations without constraints or structural bottlenecks.
Type:	Non-Functional
Details and Constraints:	The system must handle an amount of 10% annual growth of artists as well as a 20% growth of public customers. The current standings look to be: 50 Artists and 200 regular customers. The system must also be able to handle a annual growth of 15% in transactions
Revision Date and Number:	Version 01 05/04/2021
Criticality/ Priority:	High

Requirement	Explanation
Number:	2
Title:	User-Friendly
Text:	The system should be simple, easy to use and easy to navigate around by any kind of user.
Type:	Non-Functional
Details and Constraints:	The system should provide all details in a user-friendly manner so that the users of the system can navigate and carry out activities in ease. The system also provides guidelines to users on how to work with the system. All information stored on the system should be easily available and accessible depending on the authority that user holds.
Revision Date and Number:	Version 01 05/04/2021
Criticality/ Priority:	High



Requirement	Explanation
Number:	3
Title:	Verifiability
Text:	How the system will be tested and analysed to ensure and demonstrate that the system is carrying out the exact functions that it was intended to carry out.
Type:	Revision Non-Functional
Details and Constraints:	<p>The system be regularly tested to ensure that it is carrying out its intended functions.</p> <p>Regular testing ensures that the system is working as planned and is performing as it should be.</p> <p>When fixing something on a system it may cause an issue unexpectedly elsewhere, so with regular testing those issues can be resolved quicker and help deliver a quality system.</p>
Revision Date and Number:	<p>Version 2.0</p> <p>05/04/2021</p>
Criticality/ Priority:	High

Requirement	Explanation
Number:	4
Title:	Reliability
Text:	The system should be reliable enough to carry out all its functions and carry them out fully with no failures or glitches.
Type:	Revision Non-Functional
Details and Constraints:	The system should be reliable to the extent that the business is able to trust that it will run effectively without the risk of failure for a given period of time under predefined conditions.
Revision Date and Number:	<p>Version 2.0</p> <p>05/04/2021</p>
Criticality/ Priority:	High



Non-Functional Requirement	Explanation
Requirement number:	5
Requirement Title	Availability
Text	The way in which users can depend on the system to be able to function during normal operating use and time
Type:	Operation Non – Functional
Details and Constraints:	<p>The system must be accessible to the user at any given point in time.</p> <p>The system should be accessible 99.9% of the time during a month.</p> <p>Scheduled maintenance periods directly influence availability</p>
Revision Date and Number:	2015-02-19 Version 1.0
Criticality/Priority:	High

Requirement	Explanation
Number:	6
Title:	Security
Text:	The system should be secure and written in a way that ensures data protection, backup, and rights to specific users only.
Type:	Non-Functional
Details and Constraints:	<p>Our system does transfer sensitive information. The artist and other user information should be held private from public. Back-end user can view the sensitive information as she has process payments and use the information to contact artists and other users.</p> <p>To avoid access to user information on the database we will adhere to database coding standards and hierarchy for example clear administration privileges when assigning roles.</p>



	<p>Next our database will be protected against SQL injection by utilizing store procedures instead of direct SQL queries for Web App interaction, we will also secure the system backups by keeping the backups off site from the original database to prevent lasting effect. Lastly, we will set a complex admin password to prevent it from being brute forced.</p> <p>The passwords for users in our system will also be encrypted for extra security and safe keeping measures.</p>
Revision Date and Number:	<p>Version 01</p> <p>05/04/2021</p>
Criticality/ Priority:	High

Requirement	Explanation
Number:	7
Title:	Data Integrity
Text:	The Systems database should be able to maintain a consistent integrity throughout all operations carried out within the system.
Type:	Non-Functional
Details and Constraints:	All operations that involve information being extracted, added, searched. Updated or deleted from the database must be available within the system at all times.
Revision Date and Number:	<p>Version 01</p> <p>05/04/2021</p>
Criticality/ Priority:	High

Non-Functional Requirement	Explanation
Requirement number:	8
Requirement Title	Performance
Text	The way in which users can depend on the system to be able to perform accordingly



Type:	Operation Non – Functional
Details and Constraints:	<p>The system must be accessible to the user at any given point in time.</p> <p>The system should be accessible be able to perform requested tasks.</p> <p>Performance targets should be achievable within a given time period.</p>
Revision Date and Number:	2015-02-19 Version 1.0
Criticality/Priority:	High

Conclusion

This segment describes and provides a roadmap for our proposed system in the most descriptive and shrewd manner possible. A list of our functional and non-functional requirements has been provided as well as details that further explains these requirements.

7. Feasibility/Decision Analysis

7.1 Introduction

The feasibility/decision analysis outlines the purpose, background, scope, and the structure. It will be conducted to compare the new proposed system to two other alternative similar systems.

Recommendations will be gathered to determine which system meets the system requirements the best. The Artech system will be compared to two other alternative systems (Robertson Art Gallery and Art Galleria) in the same industry of Art Galleries. The Operational, technical, economic and schedule feasibility outcomes will be discussed, and an evidence-based recommendation will be formed.

7.1.1 Purpose of the feasibility analysis

The feasibility analysis is used to determine the viability of a system by comparing it to two or more systems to determine the best option to address the business problem. To achieve this, all four stages of feasibility tests must be implemented. It will be determined as follows:

- **Economic Feasibility:** The economic feasibility measures the cost effectiveness of the project or solution. This will help determine whether the profits incurred are greater than the costs incurred or vice versa. This includes the Cost to develop the system, The payback period, The net present value, The Return on Investment, and the Break-even point.
- **Operational Feasibility:** This measure how well a solution meets the identified system requirements to take advantage of the opportunities envisioned for the system. It would also include a description of the functionality and to what extent the organization would benefit from the system.
- **Schedule Feasibility:** Will help determine the estimated duration of the project and when it will be completed. It will measure how reasonable the project timetable is.
- **Technical Feasibility:** Is the measure of the practicality of a specific technical solution and the availability of technical resources and expertise to implement and maintain it. It will assess the technical resources available.

7.1.2 Background

The Johan Van Heerden Art Gallery needs a user-friendly and easily accessible system for its different potential users. The current system has artists and potential art students making bookings on WhatsApp and Facebook and the artists are struggling to apply for exhibitions through the PDF forms. The art gallery uses a paper-based system and excel spreadsheet to record everything else.

7.1.3 Scope and Structure of the feasibility Analysis

The feasibility analysis will compare the Artech System proposed to the two other galleries in the same field: the Robertson Art Gallery and Art Galleria.

7.1.3.1 Artech System

This is the system proposed by Binary Brains. The system is intended to address the business problems by developing a system with the following functionality:

- Scheduling



- Booking Management
- Exhibition Management
- Adding artwork directly from artists into their profiles
- Custom fields
- Artist portals
- Mailout announcements
- Inbox functionality
- Reports

7.1.3.2 *Robertson Art Gallery*

The system is poorly organized with little functionality and a poor, basic outlay of their functions.

- Keeping track of latest
- Forms

7.1.3.3 *Art Galleria*

The system is comprehensive and well-organized.

Features include:

- Image Vault
- Inventory Management
- Custom Fields
- Artist portals
- Secure and Private
- Invoices and Payments
- Mail out Announcements.
- Accounting Integration
- Multi-Platforms

7.2 Feasibility Analysis

Feasibility Criteria	Weight	Robertson Art Gallery	Art Galleria	Artech
Operational Feasibility Functionality. A description of to what degree the candidate would benefit the organization and how well the system would work.	50%	<p>The system is poorly organized with little functionality and an extremely poor and basic outlay of their functions.</p> <p>The functionalities are as follows:</p> <ul style="list-style-type: none"> - Keeping track of latest additions to the gallery - Creating an order form for what users would like to order. - Provides a clear and organized view of the various artists within the system alphabetically, along with their sample artworks. - A user can click to enquire which automatically opens the users preferred e-mailing system to communicate. - You can apply to buy the artwork which then gets sent to admin for approval. 	<p>The system is comprehensive and well-organized. It includes functionalities such as:</p> <ul style="list-style-type: none"> - Adding Gallery artwork Directly from Artists - Private Room: Consists of a personal viewing room of the various artworks in the gallery chosen by artists. Artists can also invite their contacts to view this customized art gallery created by them. - Image Vault: Where the user can Keep hi-res photos of their artworks in one place, safely storing one or multiple images per piece. - Inventory Management: To catalogue current and sold art inventory. - Custom fields: Easily add, rename and reorganize fields to perfectly match the data requirements. - Artist portals: Allow artists and collaborators to upload and submit artworks directly to their gallery. Submissions will be reviewed, accepted and rejected with full work flow support. - Secure and Private: Control access and share only specific artworks or collections. By default, all the information is private and secure. - Invoices & Payments: Print or email professional invoices and track payments received. Accept credit card payments for your invoices online, in person and over the phone. - Mailout announcements: Send email announcements for upcoming exhibitions, availability of new artworks or specials via the Private Rooms feature. - Accounting Integrations <ul style="list-style-type: none"> - Integrate with QuickBooks and Xero to automatically sync invoice and contact information from Art Galleria to your accounting system. - Provides easy access to elements and activities within the system. - Integrates Art software 	<p>The system is comprehensive and well-organized. It includes various functionalities such as:</p> <ul style="list-style-type: none"> - Adding artwork directly from artists into their profiles. - The user can Keep hi-res photos of their artworks in one place. - Exhibition Management: To catalogue current and sold art inventory. - Custom fields: Easily search and reorganize fields to perfectly match the data requirements. The admin can also add and update fields for efficient searching. - Artist portals: Allow artists and collaborators to upload and submit artworks directly to the gallery in their profile. Submissions will be reviewed, accepted and rejected with full workflow support from the Admin. - Secure and Private: the profile of artists is private and can only be viewed by themselves or the admin. - Invoices & Payments: Print or email professional invoices and track payments received. Accept Proof of payments of EFT's, Credit card/debit card, in person payments. - Mailout announcements: Send email announcements for upcoming exhibitions and the availability of new classes. - Inbox functionality: Send messages of approval for specific exhibitions and approval for booked art classes. - Integrate with QuickBooks to keep track of payments and type of payment made. - Provides easy access to elements and activities within the system. - Integrates E-mailing functionality for verification and further communication. - Cloud-based platform - Can easily contact the Gallery via e-mail, phone calls or by visiting. - Send reminders: Customized exhibition reminders are created and sent to artists that are part of that exhibition. - An archive section for artwork that hasn't been bought or retrieved back by the artist.



<p>Political. A description of how well received this solution would be from both user management, user, and organization perspective.</p>		<p>This solution is not well received as it has little to no user management with no organizational functionalities that would engage users into working within the system.</p> <p>The user only gives access to potential buyers(public) and not to artists who would like to sell their artwork.</p>	<p>- Multi-platform (cloud based and downloadable application)</p> <p>- The contact section includes filling in your information and your query which is then sent to the admin.</p> <p>- Monthly payments are to be made in order to use the system.</p> <p>The system provides insightful information into the inventory, reporting, sales & production, and other statistics which benefits the user to enhance their productivity and make better profits.</p> <p>It also allows to keep track of consignments and keep tabs on when and where they are due, which helps the user have a better time management element.</p> <p>The system allows easy viewing and printing of invoices and papers as well.</p> <hr/> <p>A well-received solution in terms of various functionalities offered to artists who are specifically working only with exhibitions, but as per the public, the access to all these functionalities require a type of monthly or yearly payment which hinders the users interest to be part of the system, as users hold different opinions when it comes to payments.</p> <p>The system also requires the artist to have background knowledge on how to create catalogues as it does not provide any form of user guidance.</p> <p>This system provides way too many functions for one to process that it may becoming overwhelming to the users,</p>	<p>- Order customized frames for personal artwork or for artworks purchased at the gallery.</p> <p>- Book art class: Users who would like to learn a specific kind of art can search through the list and book a class for that kind of art.</p> <p>- Teach: Artists can apply to teach an art class by contacting the owner and specifying personal details.</p> <p>- Provides free access of all features of the system to the users.</p> <p>The system provides insightful information into the inventory, reporting, booking, exhibitions and other statistics which benefits the user to enhance their productivity and learn about the different kinds of artworks most used in a specific period of time.</p> <p>It also allows to keep track of the exhibitions and keep tabs on when and where the artworks are due, which helps the user have a better time management element.</p> <p>The system allows easy viewing of Proof of payments and images in different formats (PDF, Word, Excel).</p> <hr/> <p>A well-received solution in terms of various functionalities offered to the users - whether they are artists who want to exhibit, students who want to book for classes, or artists/general user who want to teach art. All features are available to potential users of the system.</p> <p>The system provides the artist with a user guidance video that results in the artist gaining maximum efficiency from the system.</p> <p>The system provides an effective number of functions that would not overwhelm the users and would help them engage with ease.</p> <p>The admin holds authority of what kinds of artworks will be showcased on the system, customize exhibitions, customize classes, engage with users via inbox communication, announcements and e-mails and manage the overall system.</p>



			Score: 60	Score: 80
		Score: 20		
<p>Technical Feasibility</p> <p>Technology. An assessment of the maturity, availability (or ability to acquire), and desirability of the computer technology needed to support this candidate.</p> <p>Expertise. An assessment to the technical expertise needed to develop, operate, and maintain the candidate system.</p>	20%	<p>The system can only be accessed on a browser and does not have any downloadable applications.</p> <p>There is no customized user profile created in order for the users to view their previous choices or history of purchase.</p> <p>The website seems to be outdated and have less management as it still holds all the artworks that have been sold instead of uploading new artworks for sale which shows that the database is fairly static; information is not valuable.</p>	<p>The system requires fast and high-speed internet connection in order to work efficiently. The system can be accessed on a website and can be downloaded on Google Play and the Apple Store.</p> <p>Provides a customized user profile created in the database along with all its details with an added functionality of keeping track of upcoming events and due dates, providing a dynamic database.</p> <p>The website is up to date and management of activities and operations within the website is clear and appropriately addressed.</p> <p>The website and applications are mature and advanced with regards to technology, making it highly desirable but difficult to operate and attain.</p>	<p>All users are provided with the opportunity to create their own profiles granting them access to the resources and functionalities of the system.</p> <p>No additional hardware requirements are needed to use the system and its accessible via website on all devices to satisfy a broad set of user's needs.</p> <p>Provides simple tools to enhance user-friendly interactions on all formats of the system.</p> <p>The system shines with mature technology as it provides to all the users desires with simple steps in completing their goals.</p>
		Score: 20	Score: 70	Score: 80
Economic Feasibility	20%	R5000	R 11808.91	Free (NA)



Cost to develop:		(The system would not cost the client a huge amount as it is clearly written in basic coding languages and not expensive coding packages and applications that require extensive knowledge)		
Payback period (discounted):		0.03 years	0.13 years	N/A
Net present value:		R 149000	R91808.91	R0
Detailed calculations:		<p>Development Cost: R4000 Maintenance Cost: R1000 Revenue generation: R12000</p> <p>NPV: Total Development cost + (revenue generation from system p.a. * years system has been online)</p> <p>$R5000 + (R9000 * 16 \text{ years})$ $R5000 + 144000$ R 149000</p> <p>Payback Period: $5000/149000 = 0.03 \text{ years}$</p> <p>Score: 40</p>	<p>Development of Software: R10000 Once off developer Subscription (Google Play App): R364.7 Subscription per year for apple store development: R1444.21</p> <p>NPV: Development cost + (revenue generation from system p.a. * years system has been online)</p> <p>$R11808.91 + (R40000 * 2 \text{ years})$ $= R91808.91$</p> <p>Payback Period: $11808.91/91808.91 = 0.13 \text{ years}$</p> <p>Score: 70</p>	No net present value as the system is still in development.
Schedule Feasibility	10%	1 month for experienced developers, 2 days of implementation to make sure the system is running efficiently, and 1 day of basic training.	8 months for experienced developers, 2 weeks for implementation to make sure applications, syncing, bookings and report systems are functional. 2 days of intensive training.	10 months for experienced developers, a week for implementation to make sure the application, syncing, bookings and report systems are functional. 2 days of training.
An assessment of how long the solution will take to design and implement.		Score: 80	Score: 70	Score: 60
Ranking:	100%	30	65	80



7.2.1 Details of each alternative (including operational, technical, schedule and economic issues)

Gallery Momo	
Operational Issues	Gallery MOMO is a contemporary art gallery with spaces in Johannesburg and Cape Town, South Africa. Since opening their doors in 2002, Gallery MOMO has developed a strong creative and intellectual platform for showcasing a substantial portfolio of South African, continental, and international contemporary art. They also manage the estates of notable 20th century South African masters. Gallery MOMO hosts a residency programme for local and international curators and artists where they aim to encourage an international dialogue and cooperation between artists from different parts of the world.
Technical Issues	Gallery Momo currently has a website which showcases the work of some of their artists, various exhibitions from the past, present and upcoming, it shows the art fairs they have been a part of and the ones that are upcoming, news that is only focused on art and they have a form that one can fill in if they have any enquiries.
Economic Issues	They don't have a payment system online so everything to do with payments is done at their place of business
Schedule Issues	For an artist to become part of the system, they must send enquiries via the form and the Admin will approve or reject them based on a set criterion. Once you have been accepted, you automatically form part of the system.



The Art Eye Gallery	
Operational Issues	<p>The Art Eye Gallery is a collaborative space that perpetuates this idea of free expression and community. Art Eye Gallery is a vibrant space where we hope to explore the infinite scope of South African art making, by shining a light on new and upcoming artists.</p> <p>Art Eye has continued to centre its focus on creating platforms for emerging and established artists to gain exposure and create sustainable visual arts careers. Art Eye Gallery bridges the gap between the formal exhibition space and workshop space allowing for artists to experiment, converse and express their innermost thoughts through the visual arts medium. The Art Eye Gallery is a venture dedicated to breaking down barriers and celebrating our diversity through Art. The gallery exists in order to create visibility and conjure discussions around humanity, diversity and create a sense of community between artists and art buyers.</p>
Technical Issues	<p>AFRONOVA Gallery currently has a website which showcases the work of some of their artists, hosts a viewing room online, a section where you can fill in a form and visit the gallery by appointment, news about art and section dedicated to poetry only.</p>
Economic Issues	<p>There's no payment system that can be seen on their website.</p>
Schedule Issues	<p>For an artist to become part of the system, they must send enquiries via the form and the Admin will approve or reject them based on a set criterion. Once you have been accepted, you automatically form part of the system.</p>



The White House Gallery	
Operational Issues	<p>The White House Gallery has become an important source for 20th Century, Contemporary International and Local art, with a wide-ranging inventory consisting of editions, drawings, paintings, and sculptures.</p> <p>Situated in Illovo, Johannesburg, our sophisticated, modern environment provides art enthusiasts, established and new collectors, decorators and browsers with an unrivalled visual art experience. An environment where art lovers can exchange views and insights into the ever-growing and changing world of art.</p> <p>The White House Gallery is one of the few galleries that bring amazing International art into South Africa. Often on display at the gallery are artists such as Joan Miró, Jim Dine, Mr. Brainwash, Marc Chagall, Victor Vasarely, David Hockney, Pablo Picasso, William Kentridge, Victor Pasmore and Andy Warhol.</p>
Technical Issues	<p>Their website will allow you to browse through the gallery's entire collection and make easy online purchases. It is as simple as finding an artwork you like and filling out the enquiry form. This will give us the opportunity to provide you with any further details on your chosen artwork. If you do not see the artwork you are looking for please send them an enquiry and they will do their utmost to source it for you. They provide freight for your artwork anywhere around the world.</p>
Economic Issues	<p>People can make purchases online via their website</p>
Schedule Issues	<p>The system is available to you as soon as you register to sell or buy artworks.</p>

7.2.2 Recommendations from Feasibility Analysis:

According to the evaluation of the available systems in the feasibility analysis that compared three systems in terms of operational, technical, economical and schedule feasibility, we can conclude by saying that Artech is the best system to be used by The Johann van Heerden Art Gallery.

This system is not only simple, but user-friendly and highly cost effective as it is developed for free and has no charges to join or to use I.e., it is accessible to all. With regards to technicality, it requires basic computer literacy and hence can be used by all ages.

Artech fulfils all requirements of the gallery perfectly, I.e. doesn't exceed the need of functionalities or recede them. It is also completed and delivered at an appropriate



timeframe. Hence, keeping all the analysis in mind, Artech is the most feasible system to use for this Gallery.

Conclusion

This segment includes the feasibility analysis for our proposed system (Artech) and three other alternatives namely: Gallery Momo, Afronova Gallery and The ArtEye Gallery. Recommendations were made based on the feasibility matrix outcomes as well as other research studies that were conducted. In addition to the abovementioned, an in-depth analysis was conducted in order to determine and define the operational, technical, economical as well as the schedule feasibility of each alternative.

8. Appendix A: Client documentation

The Client has an extremely basic website created by Weebly. Here are the functionalities and design of the website.



Figure 7: Homepage of the Website

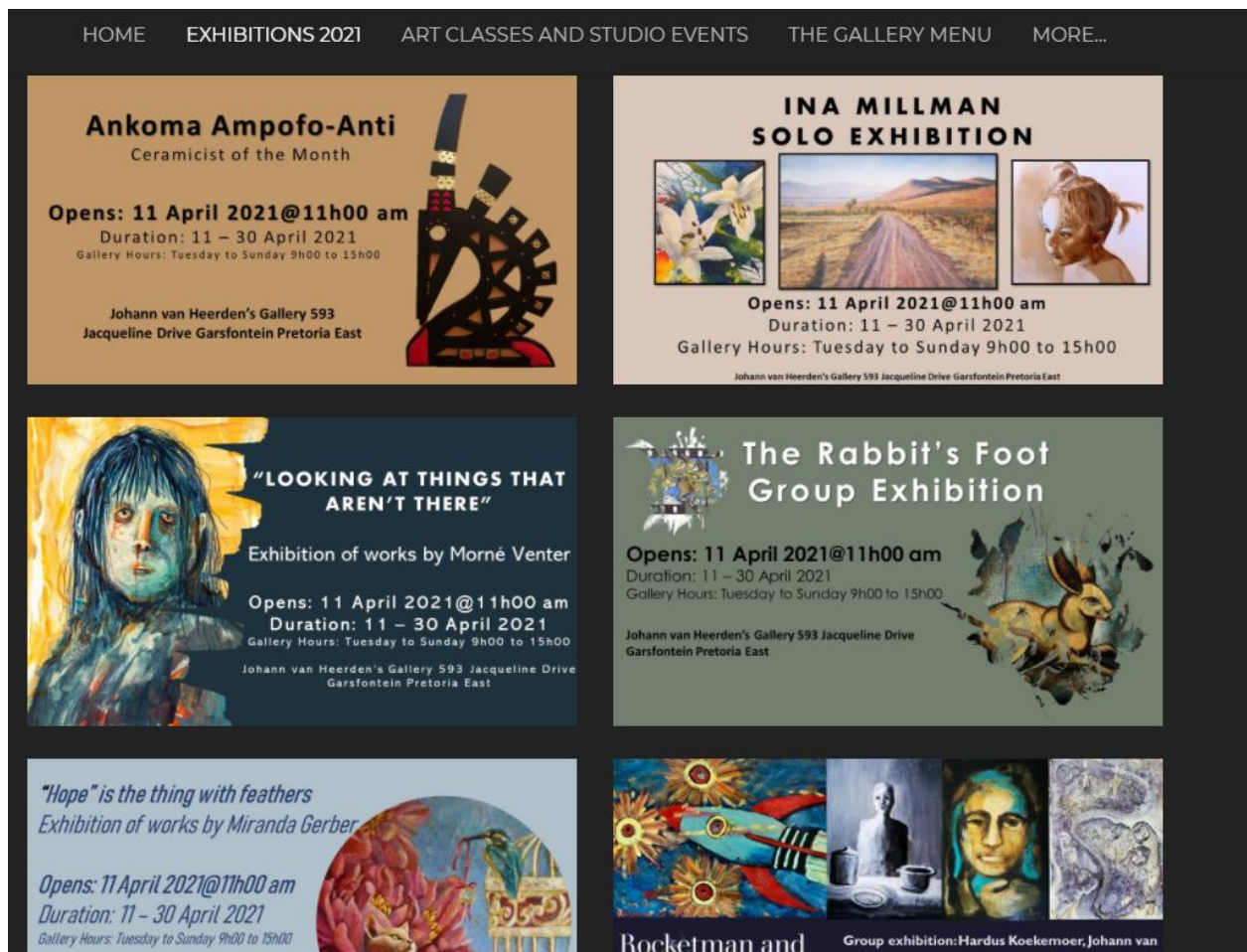


Figure 8: Posters of Available Exhibitions

HOME


EXHIBITIONS 2021

ART CLASSES AND STUDIO EVENTS

THE GALLERY MENU

MORE...


Book through Miekie cell: 0797809807



Advanced Charcoal Portrait Drawing Course by Douw van Heerden

Date : 27 & 28 MARCH 2021
Time: 10h00 – 16h00
Cost: R 1650 per person
(Lunch, coffee & tea included)
Bookings: Miekie 0797809807
Only 8 people per class
Social Distancing and wearing of masks Compulsory


Johann van Heerden's Art Gallery
593 Jacqueline Drive Garsfontein Pretoria -East



Taking Photographs of your Artwork

Best practice to photograph and edit art with David Ceruti.
Hands-on with camera settings, lighting, colour, reflections, and a simple but effective Photoshop workflow.
Saturday 6 March 10:00 – 16:00
Cost – R750 per person
Only 8 persons per class
STRICT COVID PROTOCOLS WILL BE FOLLOWED
Bookings – Miekie on 079 780 9807
Johann Van Heerden's Art Gallery, 593 Jacqueline Dr, Garsfontein, Pretoria


Artivive Augmented Reality Workshop with Benjamin Mitchley



20 March 2021
10h00 to 15h00
R1075.00 per person
Only 8 persons per class
Strict covid protocols will be followed
Bookings:
Miekie 0797809807

Johann van Heerden's Art Gallery, 593 Jacqueline Dr, Garsfontein, Pretoria

Alcohol Ink Workshop by Nicole Hartley



Alcohol Ink is a fun, bright medium and is completely different to anything you have tried before. Soft ethereal patterns or highly detailed subjects can be created. The workshop is aimed to introduce you to the medium in abstract application. So, no previous drawing or painting experience is required.
Date: 20 FEBRUARY 2021
Time: 10h00 – 15h00
Cost: R680.00 pp all material, lunch, coffee and tea included
Beginners Welcome
Bookings: Miekie 0797809807
MAXIMUM 8 PEOPLE
Social Distancing and wearing of Face Masks Compulsory
Johann van Heerden's Art Gallery 593 Jacqueline Drive Garsfontein Pretoria East

Printmaking Classes

Etching, linocutting, collagraphs, monoprinting




Figure 9: Posters of Art Classes and Studio Events

Page | 116


[HOME](#)
[EXHIBITIONS 2021](#)
[ART CLASSES AND STUDIO EVENTS](#)
[THE GALLERY MENU](#)
[MORE...](#)

Johann van Heerden Art Gallery MENU

- **Milkshakes R25**
 - • Vanilla
 - • Peanut Butter
 - • Bubble Gum
 - • Turkish Delight
- **Coffees & Lattes**
 - Filter Coffee R20,00
 - Café Americano R25,00
 - Cappuccino R25,00
 - Espresso R25,00
 - Café Latte R25,00
 - Pot of Tea R25,00
 - Chai Tea Latte R25,00
 - Rooibos Cappuccino R25,00
- **Beverages**
- **Fruit Juices**
- **R18,00**
- **Sparkling Water**
- R18,00
- Bottled Water
- R18,00
- Coke / Coke Zero / Cream Soda
- R18,00

Home made Cake please ask what is available
R45,00

Scones served with butter, cream, cheese,
strawberry and apricot jam R45,00

Sandwiches R65,00
Home made sourdough bread - brown or white
Served with a side salad and baby Potatoes
Egg, bacon Cheese
Cheese and Tomato
Chicken Mayo

BREAKFAST 9h00 to 11h00

Georgia O'Keeffe R 95,00
Creamy Scrambled eggs served on large butter
Croissant with Salmon Cream Cheese, Smoked
Salmon and a side salad

Andy Warhol R85,00
Waffle topped with maple syrup, Bacon Bits, and
caramelized banana

Vincent Van Gogh R75,00
Fried egg, 2 Bacon rashers, pork sausage, fried
cherry tomatoes, fried baby potatoes, Brown
Home baked bread toast.

Ed Ruscha R85,00
3 Egg Omelet served with two fillings of your
choice: Choose 2 of the following:
Cheese, Mushrooms, Bacon, Fresh Tomatoes

[Message Us](#)

Figure 10: The Gallery menu list

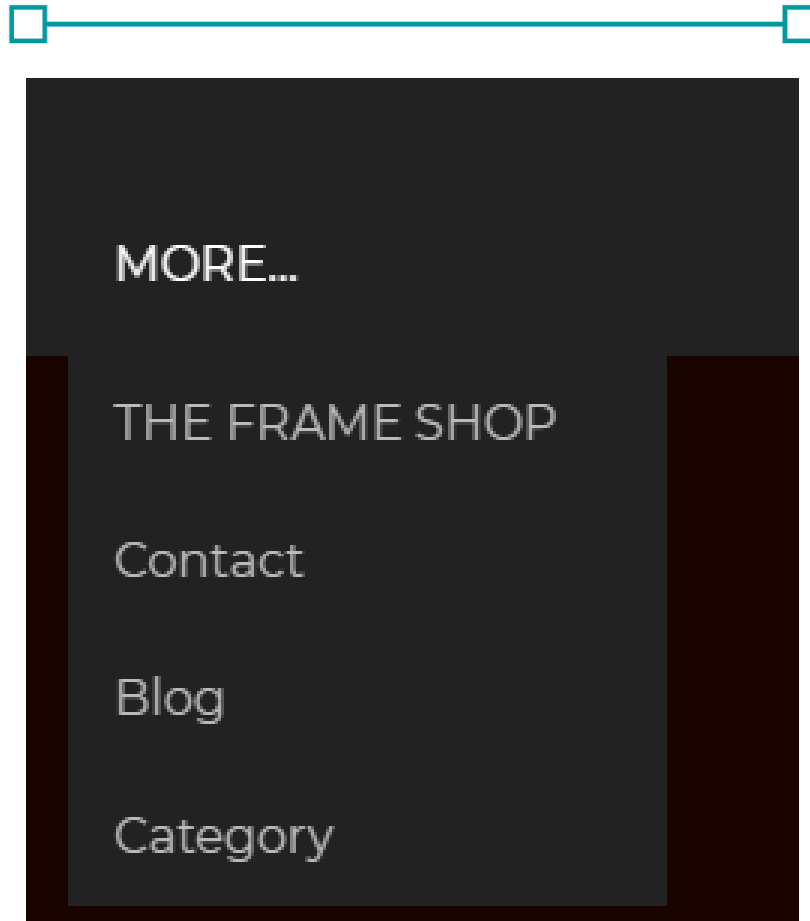
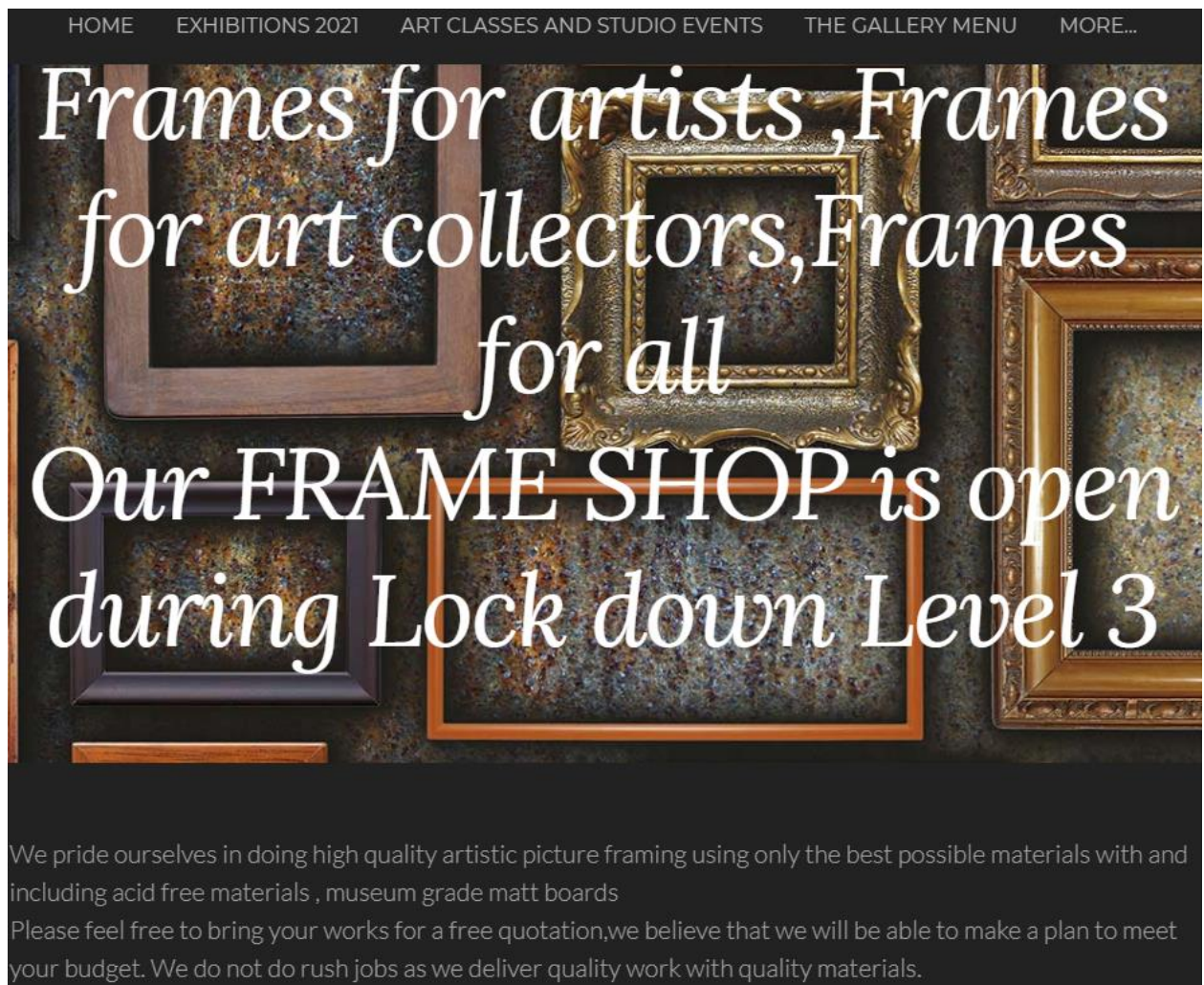


Figure 11: Options Available when Clicked on More



HOME EXHIBITIONS 2021 ART CLASSES AND STUDIO EVENTS THE GALLERY MENU MORE...

Frames for artists ,Frames for art collectors,Frames for all

Our FRAME SHOP is open during Lock down Level 3

We pride ourselves in doing high quality artistic picture framing using only the best possible materials with and including acid free materials , museum grade matt boards

Please feel free to bring your works for a free quotation,we believe that we will be able to make a plan to meet your budget. We do not do rush jobs as we deliver quality work with quality materials.

Figure 12:Option 1: The Frame Shop (Provides A short description about frames)

Johann cell: 0824453917
Miekie cell: 0797809807
Contact Us- johannvanheerdensart@gmail.com



GALLERY ADDRESS-593 JACQUELINE DRIVE , GARSFONTEIN, PRETORIA EAST

Figure 13: Option 2: The contact option (part 1)

* Indicates required field

First Name *

Last Name *

Email Address *

☐ I agree to receiving marketing and promotional materials

SUBMIT

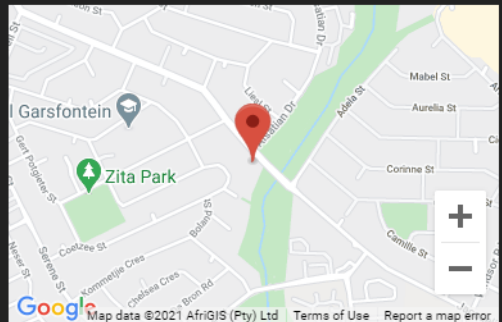


Figure 14: Option 2: The Contact Option (part 2)

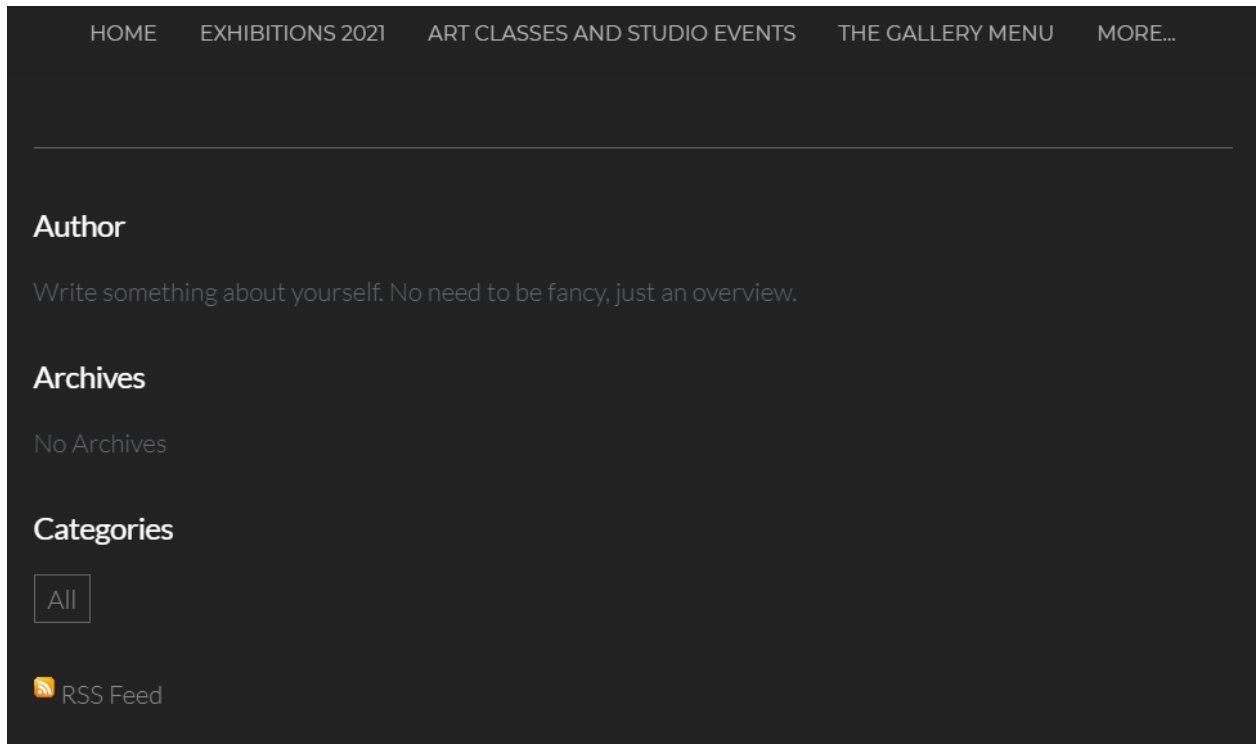
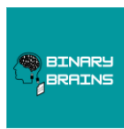


Figure 15: Option 3: Blog

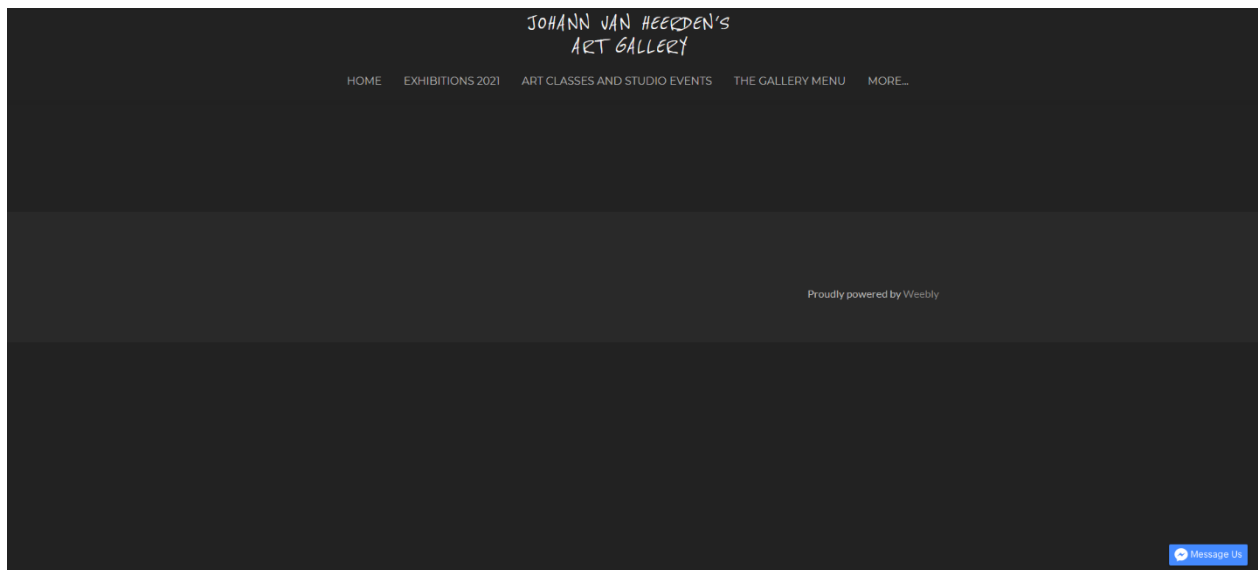
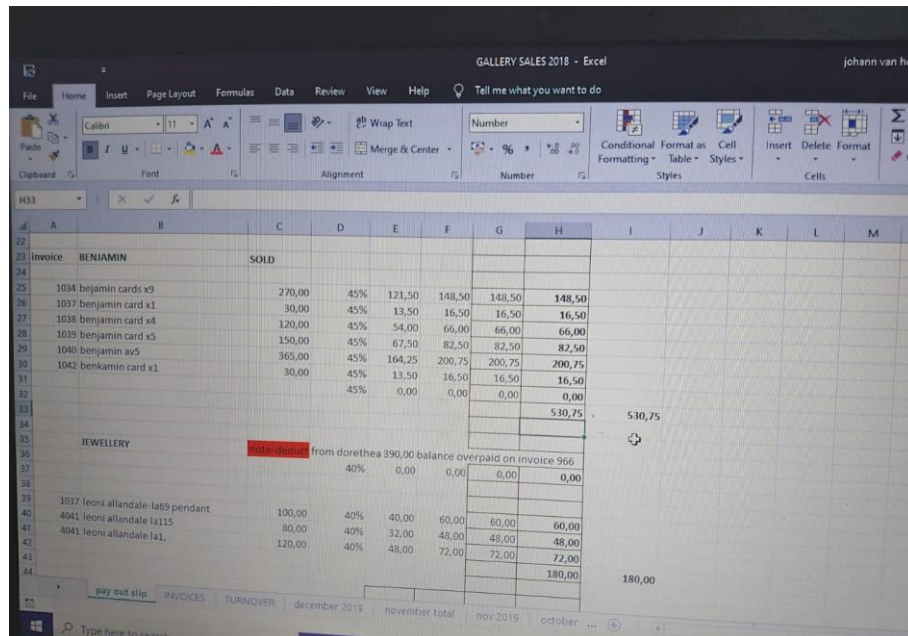


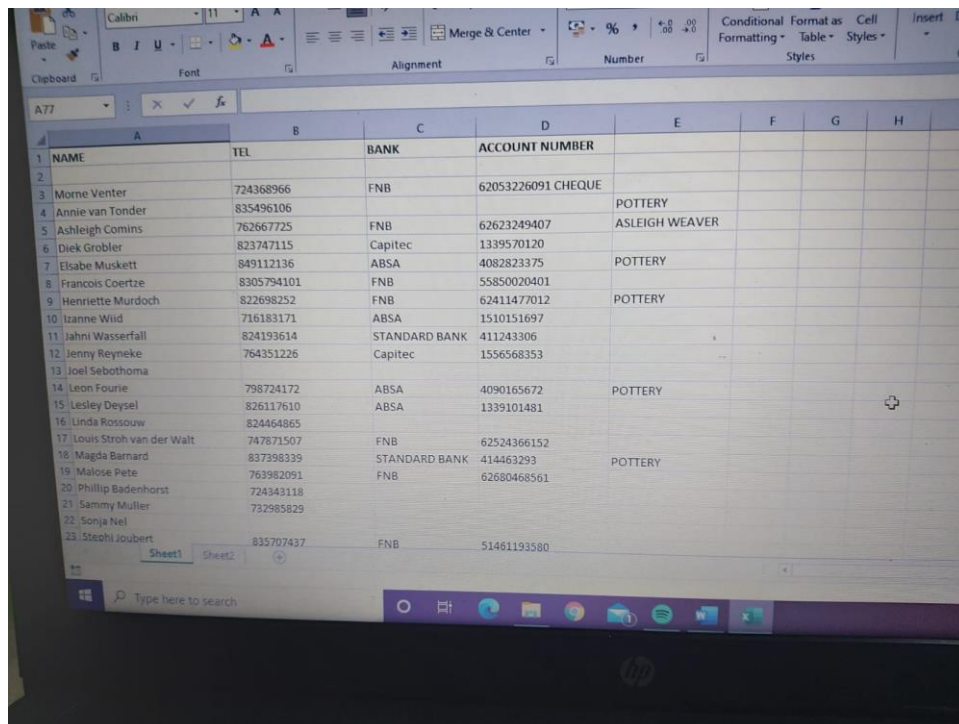
Figure 16: Option 4: Category

Shown Below are the other operations and documentations of the Gallery besides the website.



Invoice	Artist	Item Description	Quantity	Unit Price	Total Price	Tax
1034	Benjamin	benjamin cards x9	270,00	45%	121,50	148,50
1037	Benjamin	benjamin card x1	30,00	45%	13,50	16,50
1038	Benjamin	benjamin card x4	120,00	45%	54,00	66,00
1039	Benjamin	benjamin card x5	150,00	45%	67,50	82,50
1040	Benjamin	benjamin av5	365,00	45%	164,25	200,75
1042	Benjamin	benjamin card x1	30,00	45%	13,50	16,50
				45%	0,00	0,00
					530,75	530,75
	Jewellery					
		from dorethea 390,00 balance overpaid on invoice 966		40%	0,00	0,00
1037	leoni allandale-lab9	pendant	100,00	40%	40,00	60,00
4041	leoni allandale-lab115		80,00	40%	32,00	48,00
4041	leoni allandale-lab1		120,00	40%	48,00	72,00
					180,00	180,00

Figure 17: Gallery sales for the year per artist log



NAME	TEL	BANK	ACCOUNT NUMBER
Morne Venter	724368966	FNB	62053226091 CHEQUE
Annie van Tonder	835496106		
Ashleigh Comins	762667725	FNB	62623249407
Diek Grobler	823747115	Capitec	1339570120
Elsabe Muskett	849112136	ABSA	4082823375
Francois Coertze	8305794101	FNB	55850020401
Henriette Murdoch	822698252	FNB	62411477012
Izanne Wiid	716183171	ABSA	1510151697
Jahni Wasserfall	824193614	STANDARD BANK	411243306
Jenny Reyneke	764351226	Capitec	1556568353
Joel Sebothoma			
Leon Fourie	798724172	ABSA	4090165672
Lesley Deyzel	826117610	ABSA	1339101481
Linda Rossouw	824464865		
Louis Stroh van der Walt	747871507	FNB	62524366152
Magda Barnard	837398339	STANDARD BANK	414463293
Malose Pete	763982091	FNB	62680468561
Phillip Badenhorst	724343118		
Sammy Muller	732985829		
Sonja Nel			
Stephi Joubert	835707437	FNB	51461193580

Figure 18: Artist banking details on Excel



Figure 19: Daily report from till machine for sales



Figure 20: A sample slip from the general sale



Figure 21: Holding Area for art



Jobcard

Johann van Heerden Art Gallery Date 06/07/21

Description *minnie*

No. of Pics 1

Instructions

Notes

Mount Boards

Type & Colour
white

Size *Portrait*
380 X 500

Proportions

Frame

Mouldings & Slip
ER735BLK 380X500

Size
ID 380 X 500
OD 410 X 530

Glass & Backing

Glass Qty 1

Size 380 X 500

no glass
3mm foamboard

Pasting & Hardware

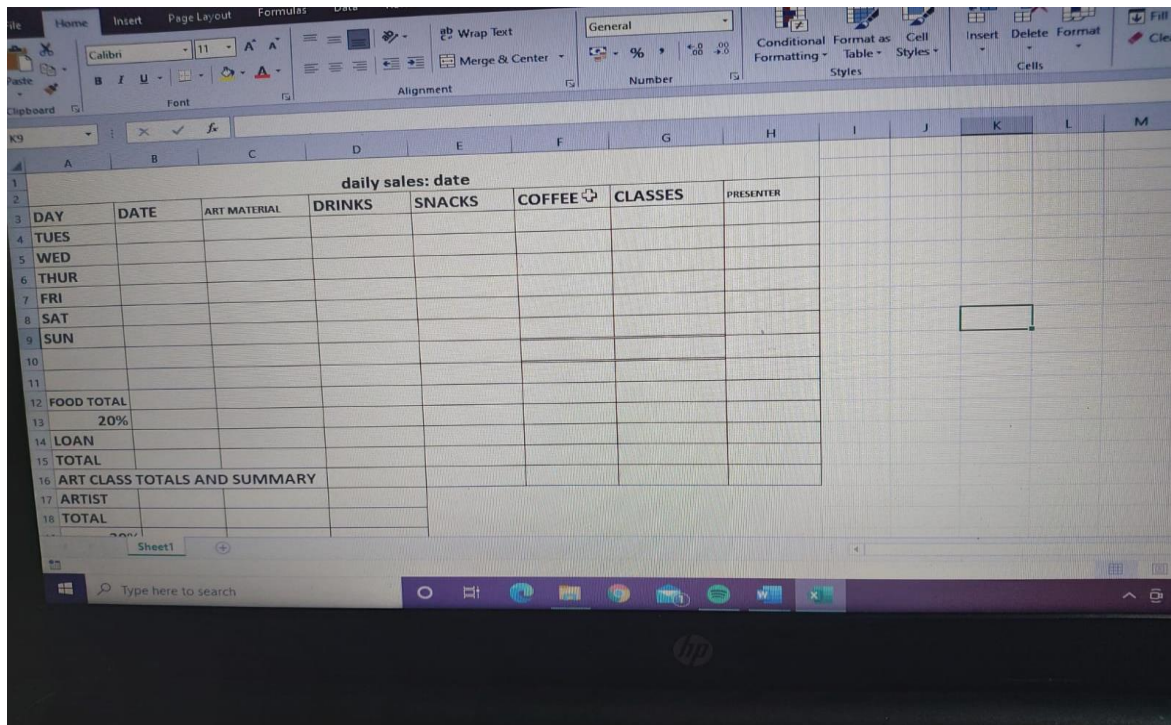
Pasting
Pasting

Hardware
no hardware

Figure 22: Job card for framing. Invoice is attached when complete

	A	B	C	D	E	F	G	H	I	J
10										
11										
12	FOOD TOTAL									
13	20%									
14	LOAN									
15	TOTAL									
16	ART CLASS TOTALS AND SUMMARY									
17	ARTIST									
18	TOTAL									
19	30%									
20	TOTAL									
21	OTHER ARRANGEMENTS AND SUMMARIES									
22										
23	Johann									
24	miekie									
25										
26										
27										

Figure 23: Daily sales end part



DAY	DATE	ART MATERIAL	DRINKS	SNACKS	COFFEE	CLASSES	PRESENTER
TUES							
WED							
THUR							
FRI							
SAT							
SUN							
FOOD TOTAL							
20%							
LOAN							
TOTAL							
ART CLASS TOTALS AND SUMMARY							
ARTIST							
TOTAL							

Figure 24: Daily sales table based of slips for the day

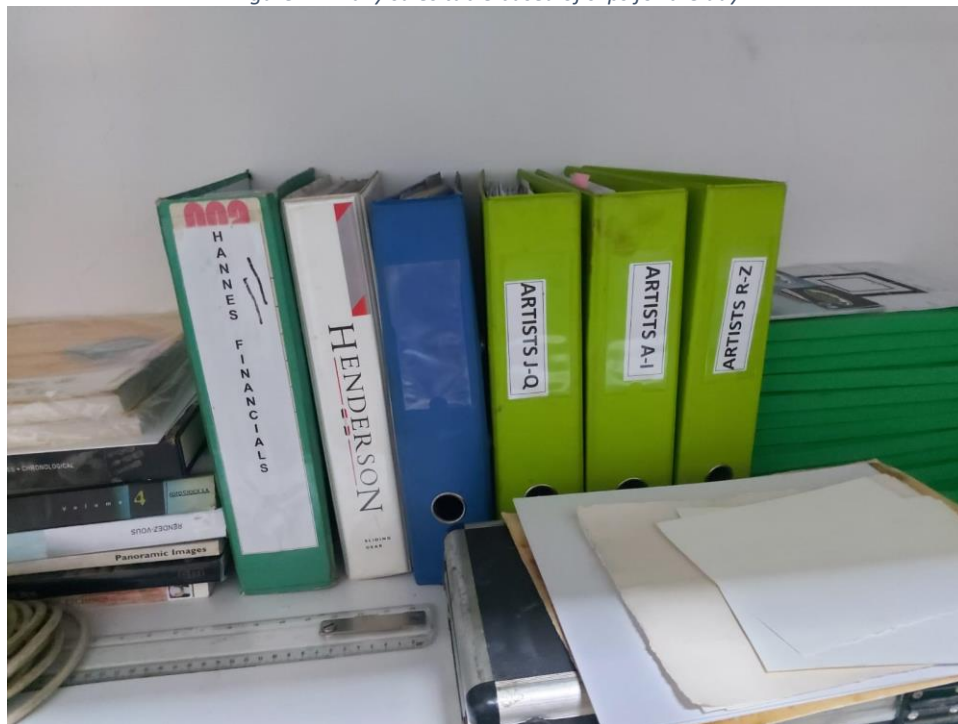


Figure 25: Artist contact information files

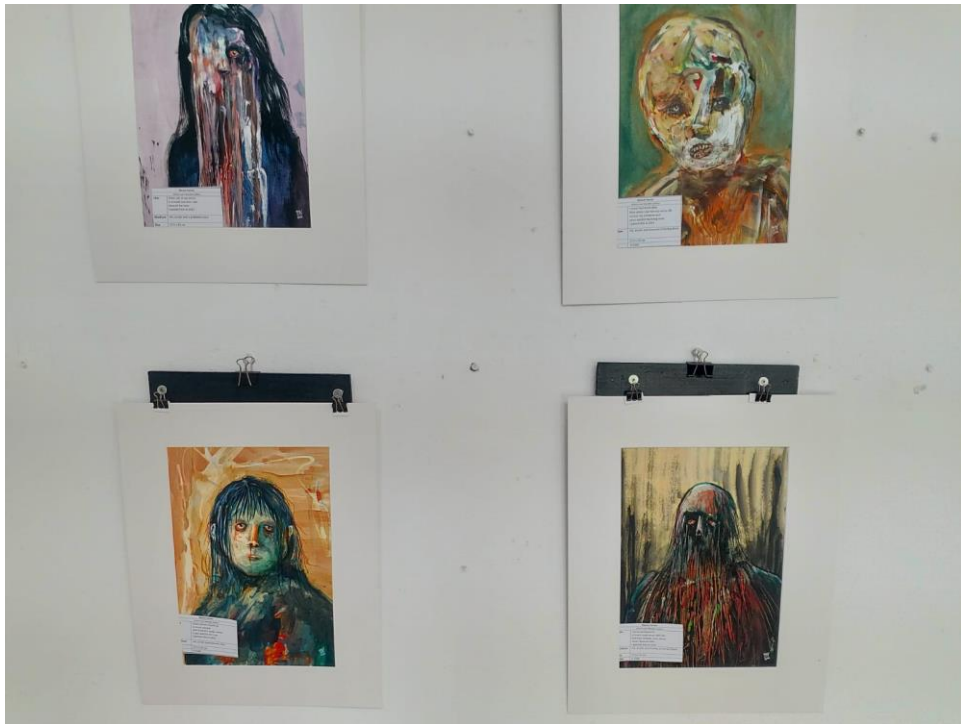


Figure 26: Artwork with new tags sorted manually

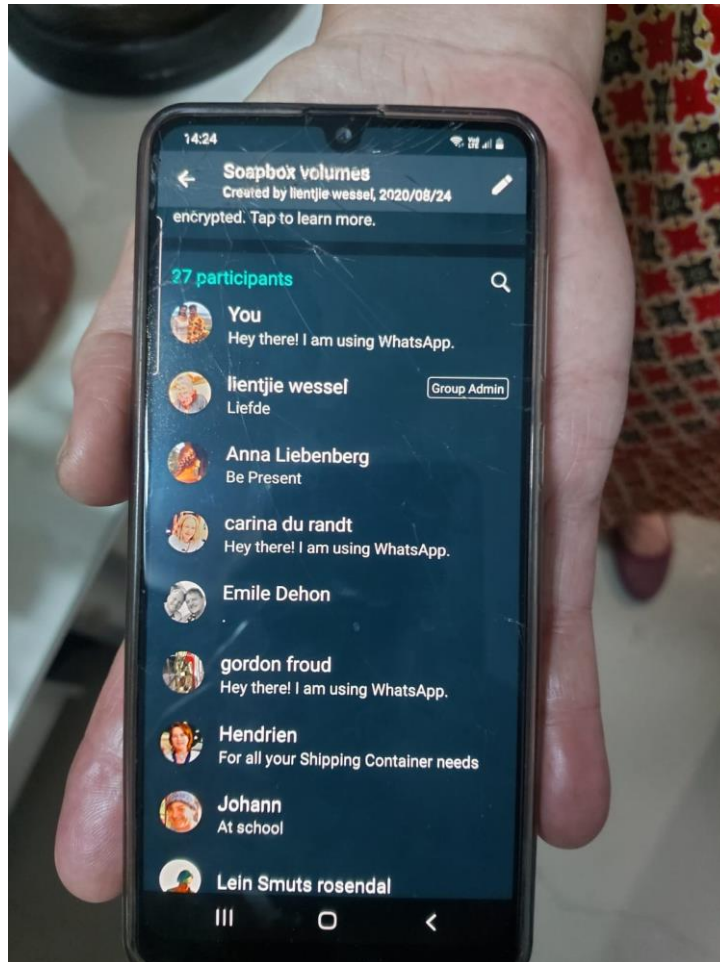


Figure 27: Groups with artist for an exhibition

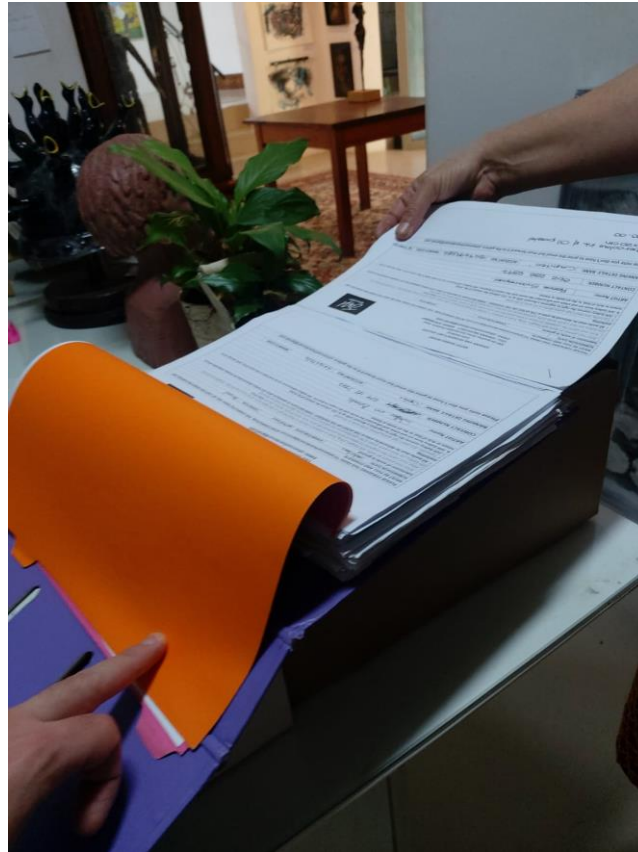


Figure 28: File containing artists per exhibition with tags

STATEMENT / REKENING 45

Kass

ix Retha		R 750,00 pd.
ix Ade		R 750,00 pd.
ix Piet		R 750,00 pd.
ix Astri	R 375	R 750,00 pd.
ix Liesl	R 375	R 750,00.
ix Jahni	R 375 pd.	R 750,00
ix Allen (Mandy)		R 450,00 pd.
ix Lydia		R 750,00
ix Mila		R 750,00

TERMS STRICTLY
TERME STRENG

DAYS NETT.
DAE NETTO.

Figure 29: Keeping track of class bookings, numbers of students and who has paid what amount

Invoice N° 1899

Johann van Heerden's Art Gallery

Name: Utis Date/Datum: 2013

Address: _____

Tel(H): _____

(W): _____

Ashley Dlamini
Johann van Heerden Gallery

Title	Sunset
Medium	Acrylic on board
Size	1m x 1m
Price	R 2200,00

Email: johannvanheerdenart@gmail.com

DESCRIPTION	AMOUNT
Ashley Dlamini - Sunset	R 2200,00

Figure 30: Artwork ready for collection with invoice and tag



Figure 31: Calendar where all classes and exhibitions are planned

Invoice N^o 1925

Johann van Heerden's Art Gallery

Date/Datum: _____ 503 Jacqueline Dr
Name: _____ Carletonville
Address: _____ 0081
Tel(H): _____ Johann 0824453917
(W): _____ Mieke 0797805807
E-mail: johannvanheerdenart@gmail.com

DESCRIPTION	AMOUNT

Invoice N^o 1926

Johann van Heerden's Art Gallery

Date/Datum: _____ 503 Jacqueline Dr
Name: _____ Carletonville
Address: _____ 0081
Tel(H): _____ Johann 0824453917
(W): _____ Mieke 0797805807
E-mail: johannvanheerdenart@gmail.com

DESCRIPTION	AMOUNT

Figure 32: Empty invoice

Figure 33: Filled invoice

Invoice No 1905

Johann van Heerden's Art Gallery

Date/Datum: 18/03/2021 583 Jacqueline Dr
Name: Willem Pretorius Gansfontein
Address: 490 Gen Fick Street 0081
Rissandol 9720 Free State
Tel(H): 076 1625 460 Johann 0824453917
(W): massie1004@gmail.com Mieke 0787808807
E-mail: johannvanheerdenart@gmail.com

DESCRIPTION	AMOUNT
1x Willem Pretorius Public Pool Darling	R8500.00
1x Willem Pretorius Pool de Nat	R5000.00
Tot	R13500.00
paid eft:	

Invoice No 1906

Johann van Heerden's Art Gallery

Date/Datum: 18/03/2021 583 Jacqueline Dr
Name: Ferdie & Mieke Steyn Gansfontein
Address: 0081
Tel(H): Johann 0824453917
(W): Mieke 0787808807
E-mail: johannvanheerdenart@gmail.com

DESCRIPTION	AMOUNT
1x Johann v Heerden Rocketman 9	R1000.00
1x Mieke Lourens "What's in your heart"	R450.00
Tot	R1450.00

EFT PAYMENTS
Johann van Heerden's Art Gallery
NEDBANK
ACC NO 1169321712
BRANCH 136305

<ARTIST NAME> Johann van Heerden Gallery			<ARTIST NAME> Johann van Heerden Gallery			<ARTIST NAME> Johann van Heerden Gallery		
Title	Medium	Price	Title	Medium	Price	Title	Medium	Price
Size			Size			Size		
Price			Price			Price		

<ARTIST NAME> Johann van Heerden Gallery			<ARTIST NAME> Johann van Heerden Gallery			<ARTIST NAME> Johann van Heerden Gallery		
Title	Medium	Price	Title	Medium	Price	Title	Medium	Price
Size			Size			Size		
Price			Price			Price		

<ARTIST NAME> Johann van Heerden Gallery			<ARTIST NAME> Johann van Heerden Gallery			<ARTIST NAME> Johann van Heerden Gallery		
Title	Medium	Price	Title	Medium	Price	Title	Medium	Price
Size			Size			Size		
Price			Price			Price		

<ARTIST NAME> Johann van Heerden Gallery			<ARTIST NAME> Johann van Heerden Gallery			<ARTIST NAME> Johann van Heerden Gallery		
Title	Medium	Price	Title	Medium	Price	Title	Medium	Price
Size			Size			Size		
Price			Price			Price		

<ARTIST NAME> Johann van Heerden Gallery			<ARTIST NAME> Johann van Heerden Gallery			<ARTIST NAME> Johann van Heerden Gallery		
Title	Medium	Price	Title	Medium	Price	Title	Medium	Price
Size			Size			Size		
Price			Price			Price		

<ARTIST NAME> Johann van Heerden Gallery			<ARTIST NAME> Johann van Heerden Gallery			<ARTIST NAME> Johann van Heerden Gallery		
Title	Medium	Price	Title	Medium	Price	Title	Medium	Price
Size			Size			Size		
Price			Price			Price		

<ARTIST NAME> Johann van Heerden Gallery			<ARTIST NAME> Johann van Heerden Gallery			<ARTIST NAME> Johann van Heerden Gallery		
Title	Medium	Price	Title	Medium	Price	Title	Medium	Price
Size			Size			Size		
Price			Price			Price		

Figure 34: Tag page

Figure 35: Artist registration and work intake form

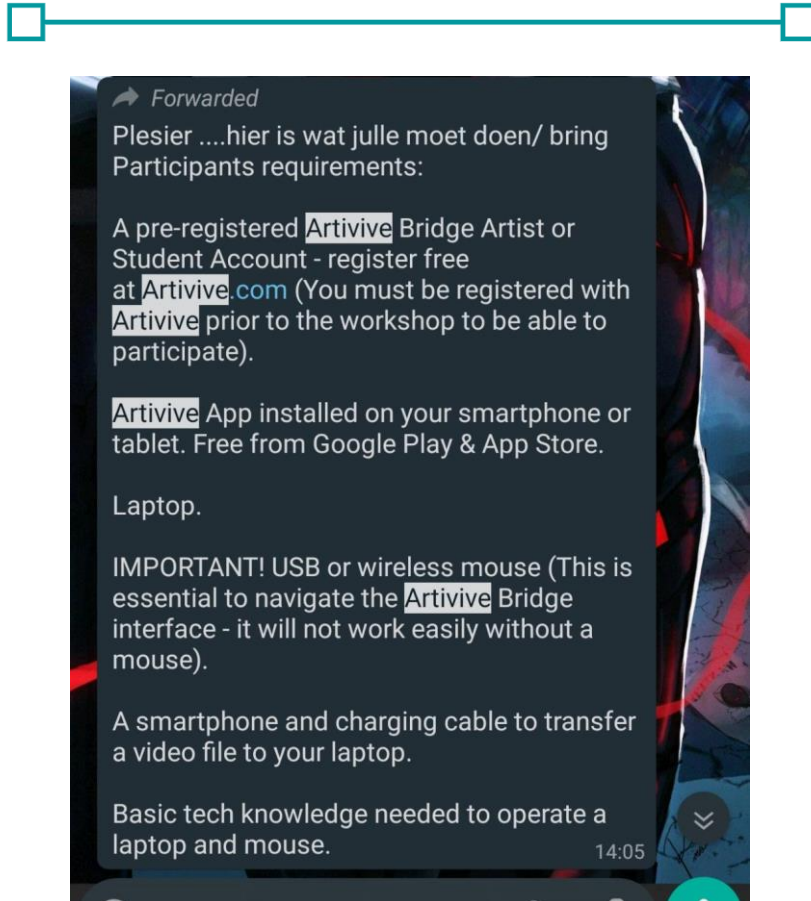


Figure 36: Details of class after paid over WhatsApp

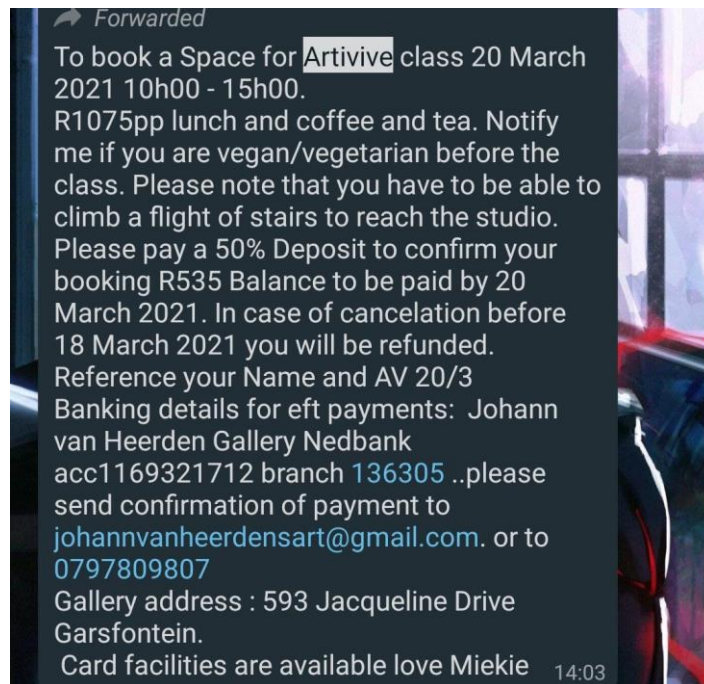


Figure 37: Payment process for classes communicated over WhatsApp

9. Appendix B: Other Systems Investigated

Introduction

This is where Binary Brains dove into other systems with their unique functionalities and features. The point of this was also to provide us what type of system we might be competing with and how these systems could help us and provide us insight on the problems they solved and give us ideas we could possibly implement into our own system.

9.1 Robertson Art Gallery (Candidate 1)

Robertson is another art gallery website that provides artwork worldwide made by well-known and young upcoming artists. This website showcases artwork but allows the users get to know the artists also at a personal and professional level. It provides them access to artists with all their collective artworks. Subscribing to their websites allows you to be notified to all latest additions the artist post on their profiles. All artworks are for sale worldwide. All orders that are made from overseas must complete a form which they provide generously on their website. There are also options to get into contact with them to discuss frames if you want frames made or buy existing ones, but only through contacting them or visiting the store can you get the frames. They are also accessible over social platforms like Facebook where they showcase their work and new arriving artists.

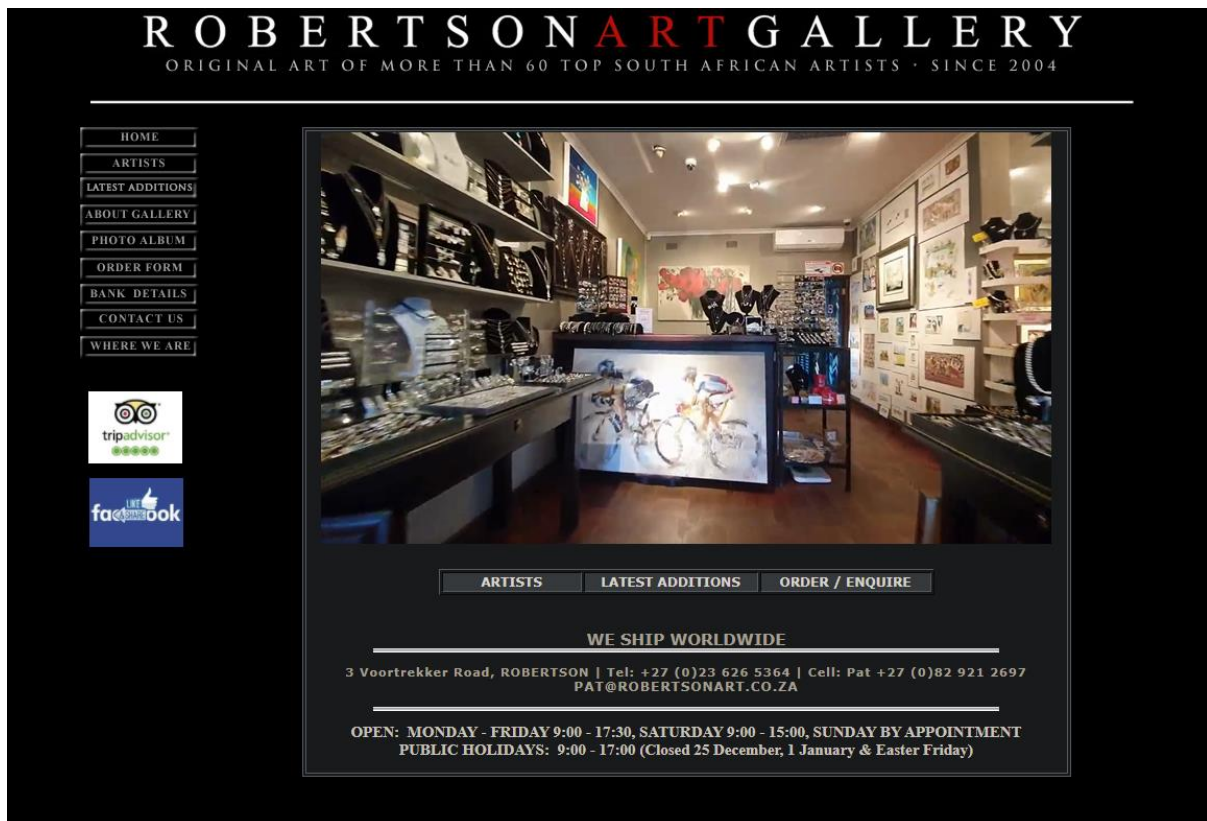


Figure 38: Robertson Art Gallery Homepage

This is Robertson's homepage providing a brief video on the cover page what the inside of their shop looks like.

Here they also display their contact details and all available options on their interface.

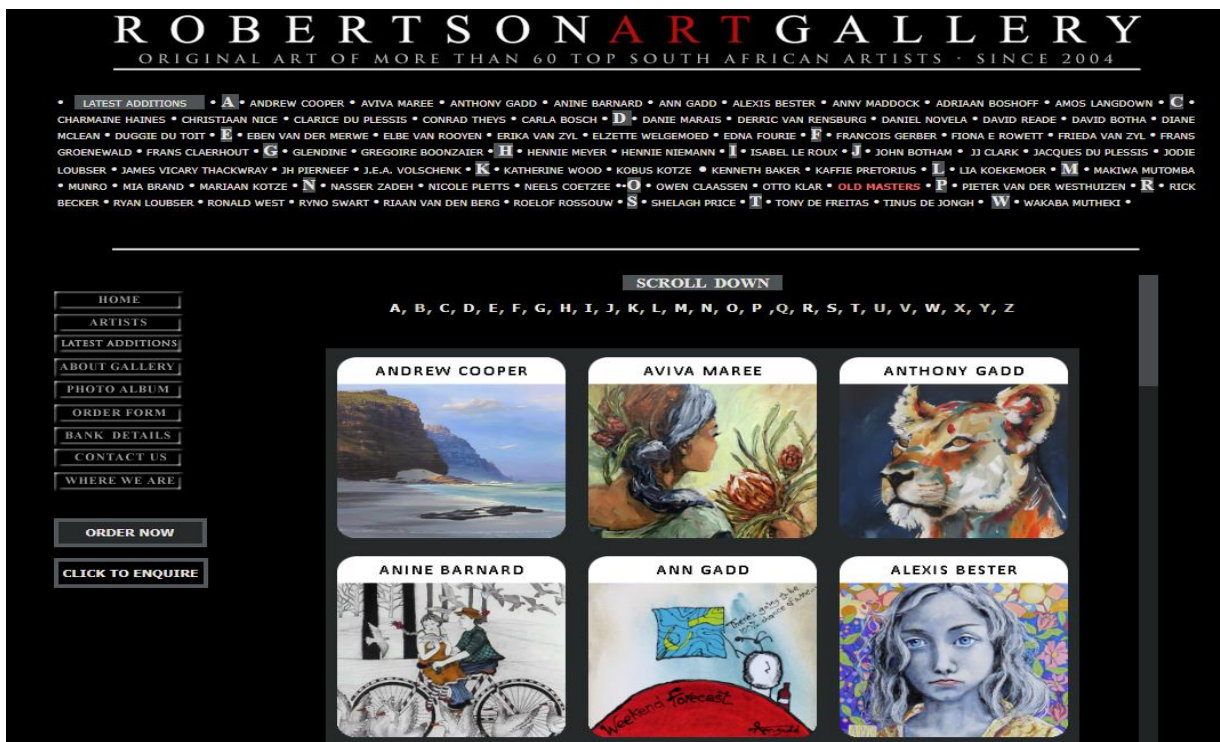


Figure 39: Robertson Art Gallery Artists

This is the artists page showing all artists with one of their greatest works as their cover on the system. This part of their system could possibly solve a problem we have with our current system. Once you click on one of the artists it opens their profile like the one below. We can use such an interface where such as theirs where artists can sign into our system and make their profile and within that profile is all their artworks with their CV indicating their level of skill and experience that they have. All their artwork has a detailed description with the price.

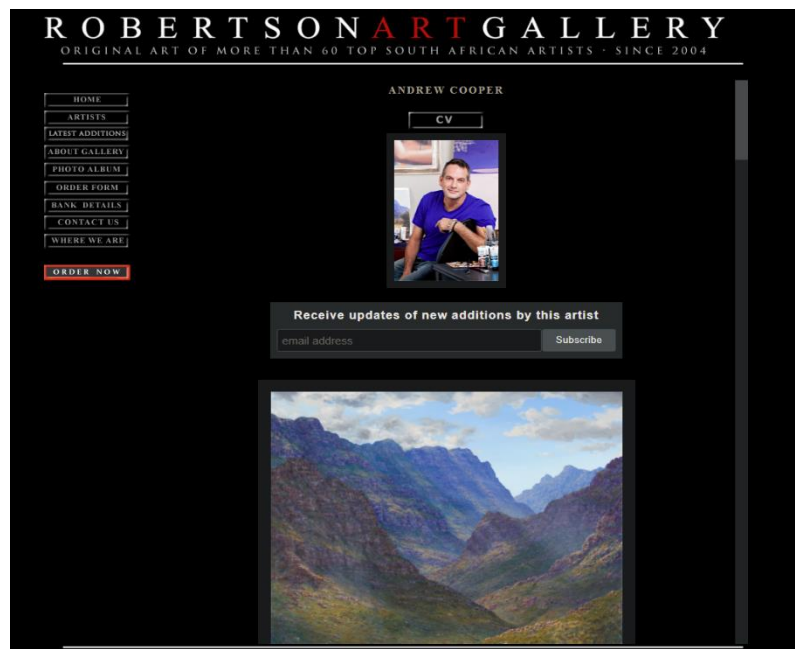


Figure 40: Robertson Art Gallery Artist Profile

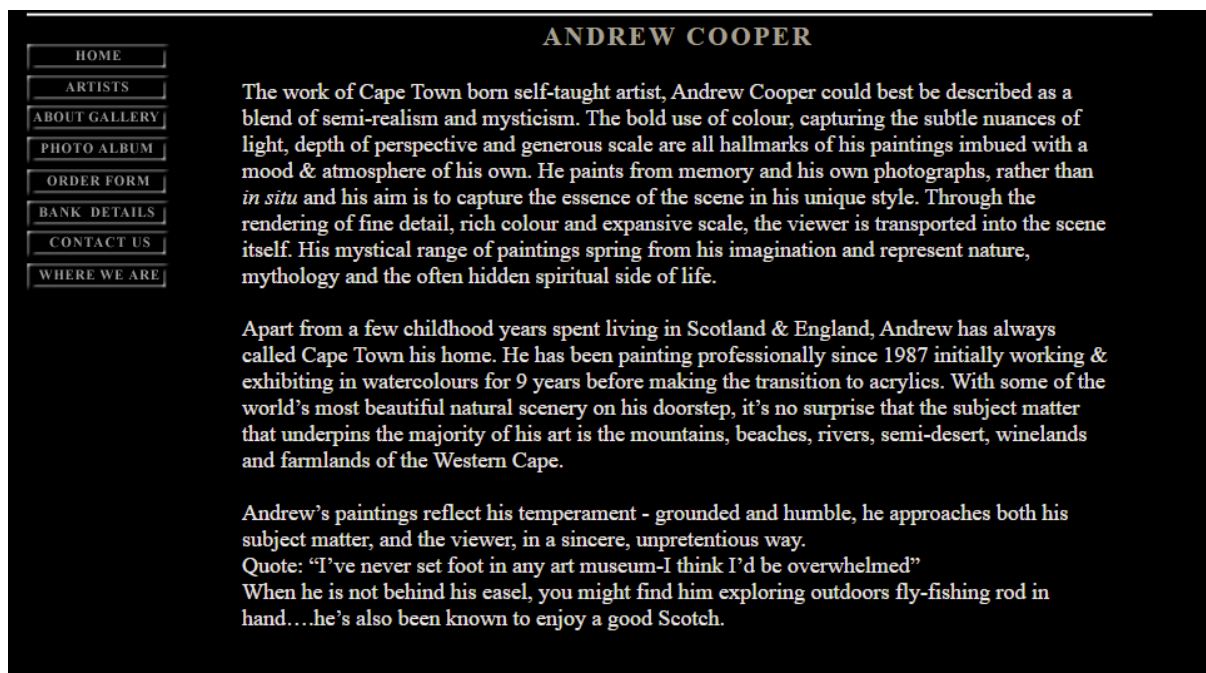


Figure 41: Robertson Art Gallery Artist CV/ Biography

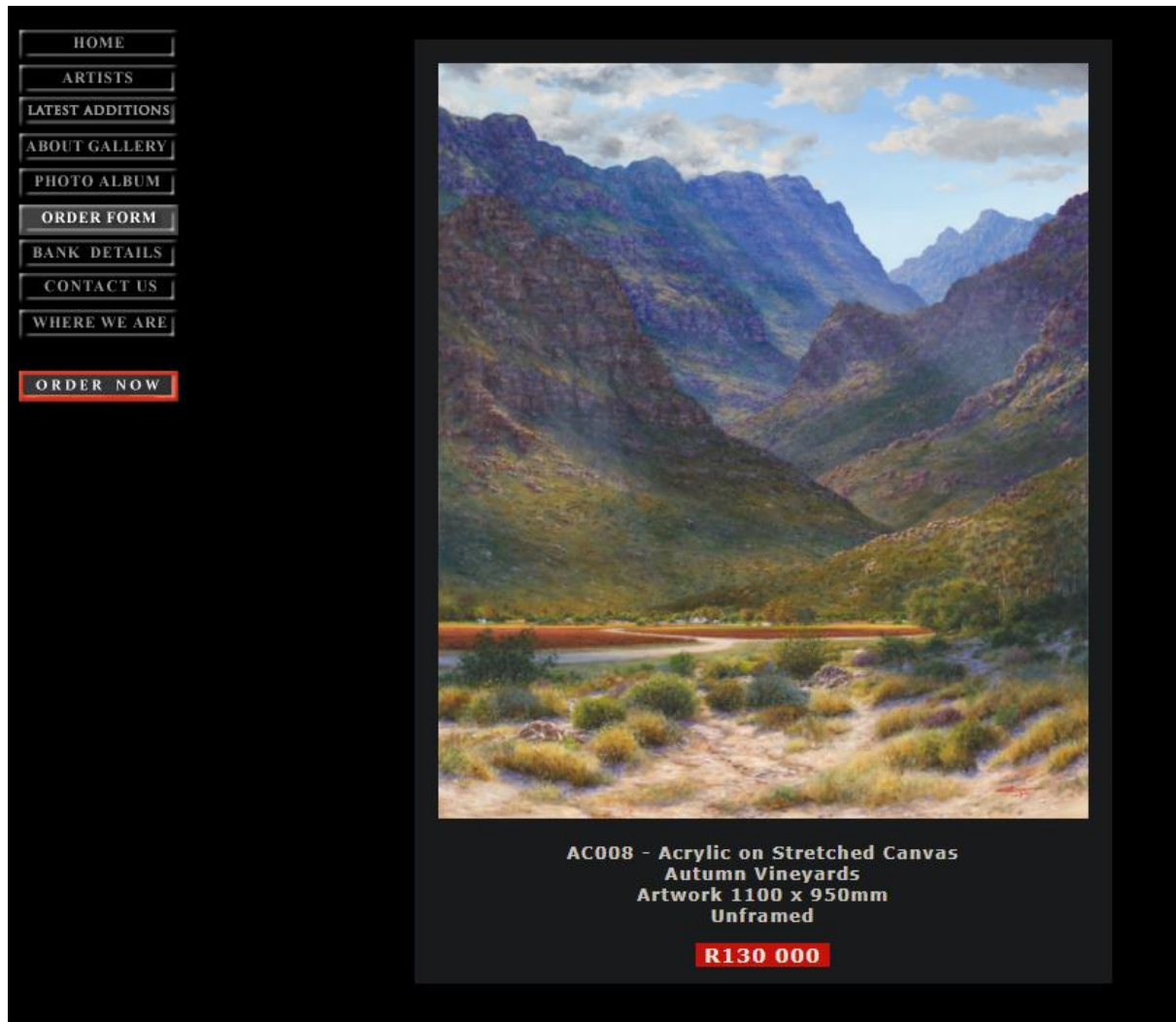
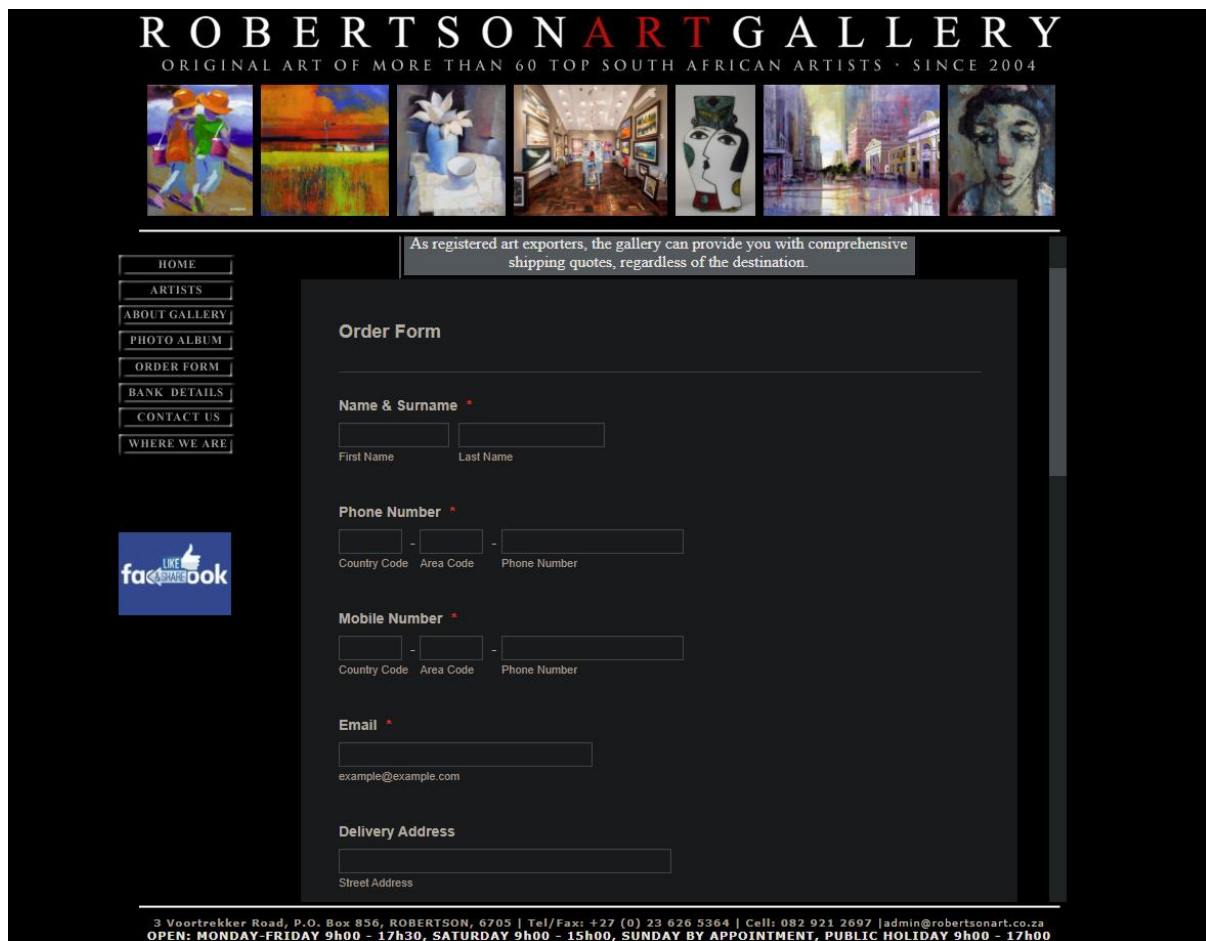


Figure 42: Robertson Art Gallery Artist Artwork



ROBERTSON ART GALLERY
ORIGINAL ART OF MORE THAN 60 TOP SOUTH AFRICAN ARTISTS · SINCE 2004

As registered art exporters, the gallery can provide you with comprehensive shipping quotes, regardless of the destination.

Order Form

Name & Surname *

First Name Last Name

Phone Number *

Country Code Area Code Phone Number

Mobile Number *

Country Code Area Code Phone Number

Email *

example@example.com

Delivery Address

Street Address

3 Voortrekker Road, P.O. Box 856, ROBERTSON, 6705 | Tel/Fax: +27 (0) 23 626 5364 | Cell: 082 921 2697 | admin@robertsonart.co.za
OPEN: MONDAY-FRIDAY 9h00 - 17h30, SATURDAY 9h00 - 15h00, SUNDAY BY APPOINTMENT, PUBLIC HOLIDAY 9h00 - 17h00

Figure 43: Robertson Art Gallery Order Form for artwork

The order form is also an inspiration to us to use this type of approach for artists on our system to apply for exhibitions or also order artwork from artists. This form has asks for all the necessary details to accurately setup the order the user made for a specific artwork.

This system focused more on our customers side for artists to showcase their work and themselves on the system for a more accessible way to get access to all the necessary information. It opened our eyes in certain areas of our system that has to do with the artist profiles and their artwork as well as the form they used to make orders where we also want to use the same approach but not just for possible orders but mainly for artists to apply for exhibitions. Gaining an understanding of how these functions worked so well together like an artist's profile with a sales function opened our spectrum on how we can approach our current system.



9.2 ArtGalleria (Candidate 2)

ARTGALLERIA is an online platform where various types of artists, collectors or art gallery managers can create their own desktop and mobile website for art management, art marketing and sales and website creations services to help manage collections, keep data organised and grow art businesses.

The system accommodates 3 sections, Management for art galleries, Artists to upload and store artworks and collectors to keep their data safe and secure. It provides all their users with a functioning database, marketing tools and other extra services.

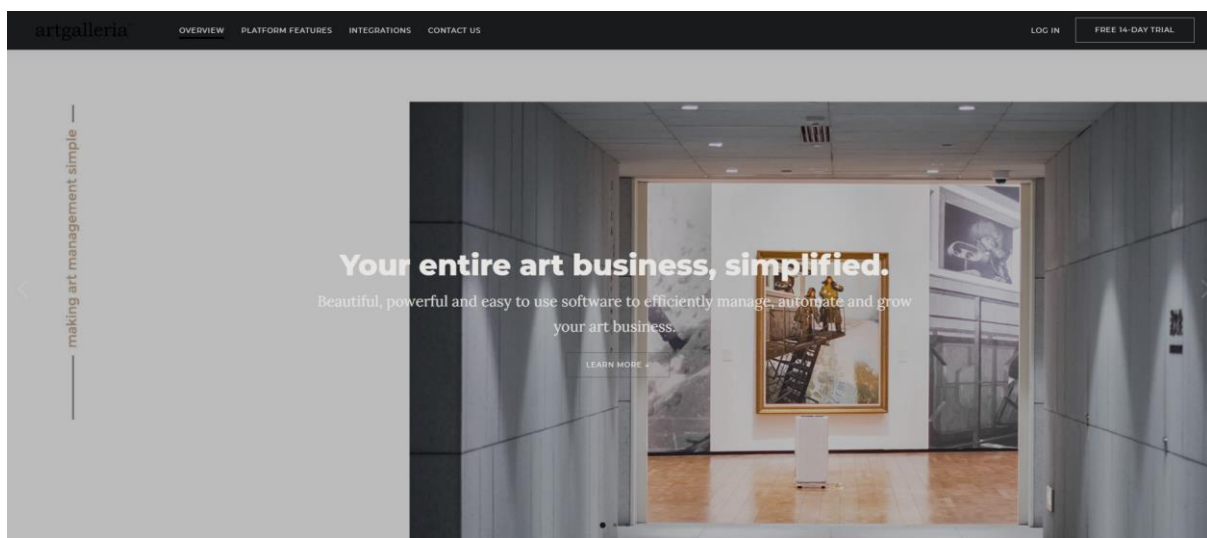


Figure 44: Art Galleria Homepage and overview

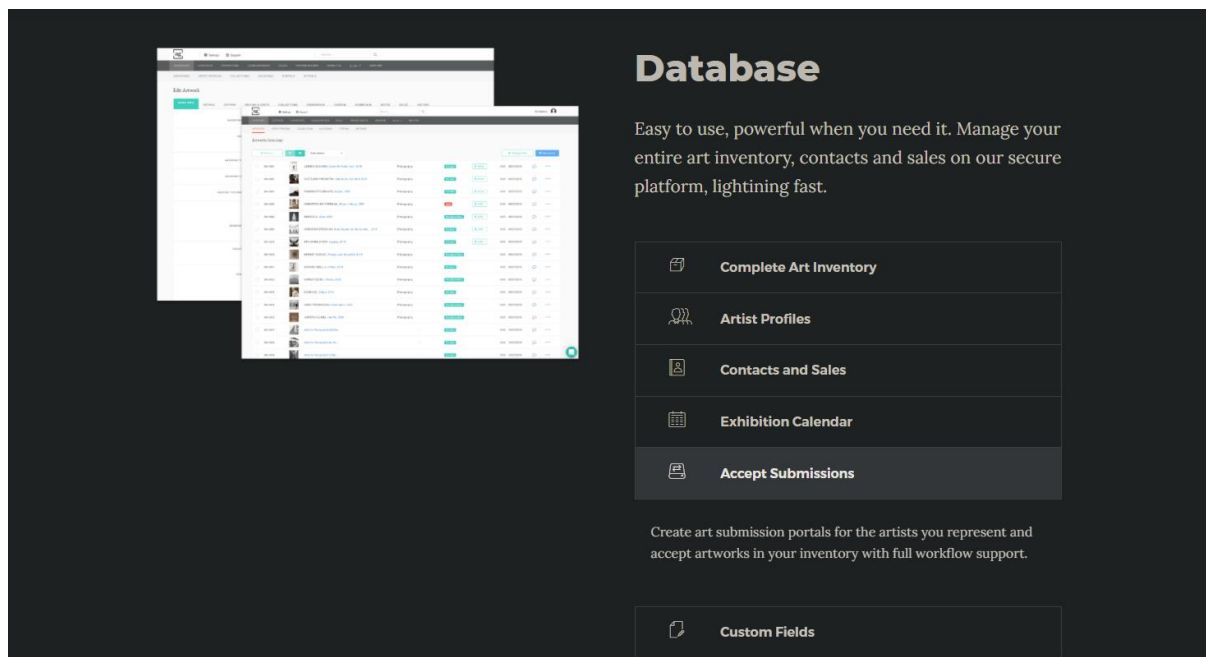


Figure 45: Art Galleria Database feature

Their database provides a bunch of features including keeping track of art inventory, Artists profiles, Submissions and Exhibition calendars. This is a very big inspiration for us with this being one of our biggest problems with our client and their current system. This could be very beneficial for our current systems admin side. Artists profiles are all together on one table, it can catalogue upcoming exhibitions and has various marketing materials for the exhibitions. Art submission portals which allows the admin to accept or decline the submission with quick and immediate access to make accurate decision and reducing the workload. All these features of Art Galleria shines some light on the problems we currently have with our system.

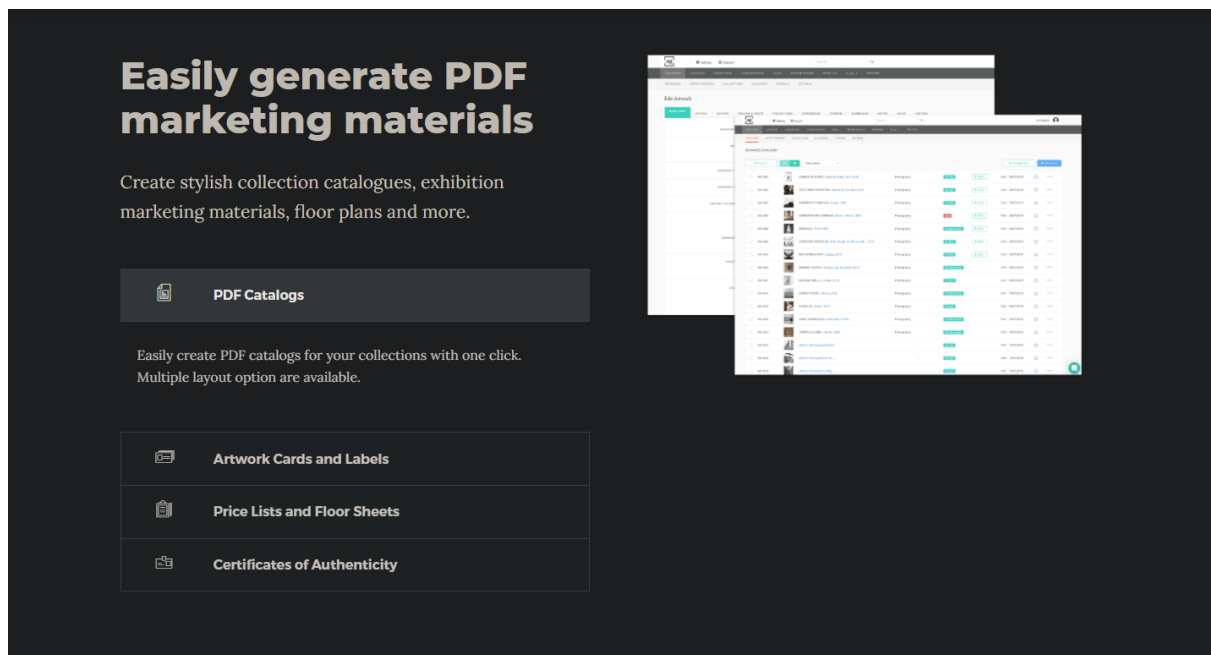


Figure 46: Art Galleria Easy Generatable PDFs feature

These easy generatable pdfs catches the information from the database table and extracts only necessary information for certain events. This can help us with our client having to generate tags for the artists artwork. It makes the process accessible with one click.

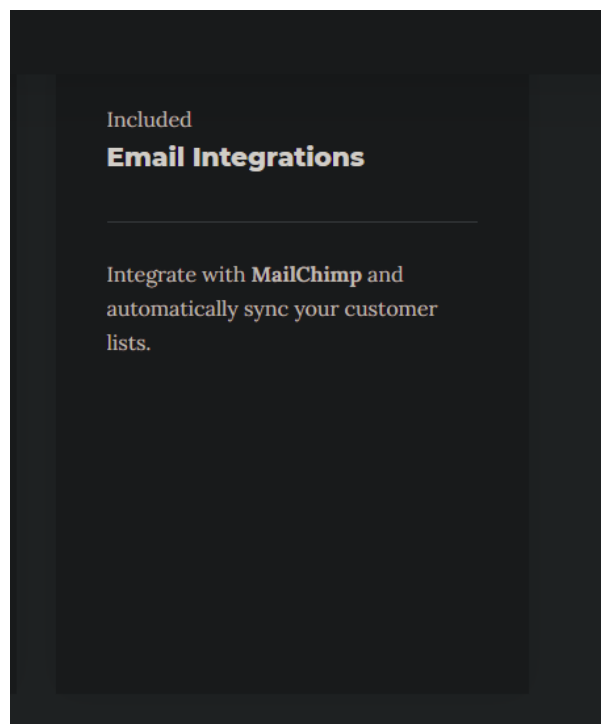
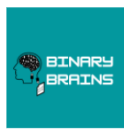


Figure 47: Email Integrations Feature



GROUP 23 DELIVERABLE 01



These email integrations along with other features allows you to integrate your Email with Mail Chimp which automatically syncs you to your customers which can make communication also all part of the system on a personal level. This also was something we liked in the sense where we with our current system have a lot of ideas in integrating emails and auto generate emails to customers.

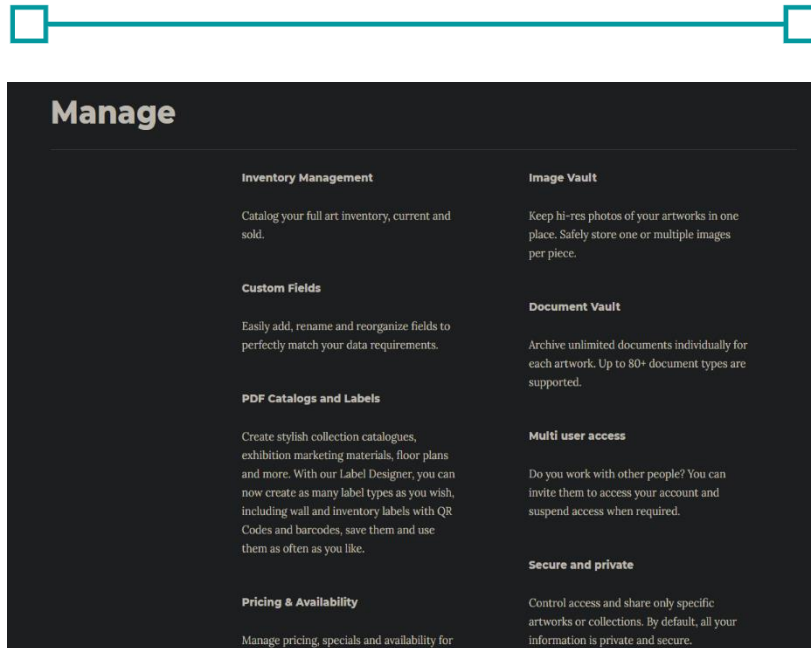


Figure 48: Art Galleria Management feature

This on the artists side providing management tools for the artist in selling and managing their artwork. It grants them more access to potential buyers and create custom fields to categorise their artwork. All these features is an opportunity for us to grant the artists on our system also with useful tools in selling and advertising their artwork.

This system for us focused more on the admin side and provided us with more solutions and ideas for our admin subsystem. It helped us gain understanding in various forms for management and artist profiles. It also provided various tools and ways on how we can implement them into our system also for a more efficient and user-friendly way on all forms allowing access to information feel so effortless and free yet restricted.

Conclusion

All these systems were incredibly unique in their own way and they differed in their goals but still had some similarities with themselves especially the artist profiles. Art Galleria was more an Admin side and Robertson Art Gallery helped us understand more from a client or artist side. The research proses was very insightful in providing us with some ideas we can take with ourselves just to help us some problems we are facing. There was much to learn and much to gain from how these systems thought about their goals and really helped us to craft our path toward our own goals.

10. Appendix C: Complexity

Topic	Level		Marks	MAX
1. Special GUI	For online applications: Responsive web design For desktop applications: Form design according to design principles (Schneiderman's golden rule on navigation applies here)	*	3	40
	Appropriate use of grids/tables	✓	3	
	Appropriate use of tabs/links	✓	3	
	Use of graphs in an appropriate business context	✓	4	
	The storage and display of graphical information, like photos with a good business reason	✓	3	
	Working e-mail automatically generated from the database in an appropriate business context	✓	2	
	Extensive user-friendly search facility	✓	3	
	At least one use of a tree to display data from the database	✓	3	
	Able to dynamically modify a data tree structure and in doing so adjusting the data in the database	✓	4	
	At least one use of a calendar view of data (not a date/time picker; not a plug-in such as Google calendar)	✓	3	
	Uploading a file into the system with appropriate business reason	✓	3	
	The use of audio/video in an appropriate business context	✓	3	
	At least one use of an administrator configurable timer in an appropriate business context	✓	3	
2. Database access	At least 30 tables used (4 member groups) or 40. tables used (5 member groups)	*	6	15
	Full referential integrity on all tables	*	6	
	At least one use of master-detail table relationships (Schneiderman's golden rule on system status applies here)	*	3	
3. Reports	At least 3 simple list reports in a reporting tool (no control breaks, no graphs, single table)	*	3	15
	At least 2 transactional report with 2 or more control breaks (with heading and calculated values/totals, multiple tables)	*	6	
	At least 1 report with adjustable criteria	✓	3	
	At least 1 management report using a graph	✓	3	
4. Flexibility	All data that can change in future should not be hard coded but maintained in a sub-module of the system (e.g. Lookup tables)	✓	6	12
	Some business rules are not hard coded but maintained in a sub-module of the system.	✓	6	
5. Error handling	All system-generated errors are trapped, and consistent, user-friendly error messages are displayed	✓	6	12
	Appropriate data validation on all input fields	✓	6	



6. Help	At least one menu item or other control that opens up a complete help document (HTML, PDF, Help-file)	✓	3	15
	Extensive context-sensitive help. E.g. calling Help on a specific screen/function will automatically open the specific help for that screen/function.	✓	6	

Topic	Level		Marks	MAX
	Search Facility on Help	✓	3	
	Extensive use of hints	✓	3	
7. Security	Logon screen with user ID and password and fixed user profiles	✓	3	13
	Applying two factor authentication with applicable business reason.	✓	3	
	Encrypted passwords in database	*	1	
	Flexible user profiles (i.e. you can dynamically add user profiles that will enable/disable access to certain parts of the system)	✓	6	
8. Deployment	For an online application: Deployment of application to a publicly accessible web server	✓	3	6
	Deployment of the database to a remote database server	✓	3	
9. Backup and Restore	A backup and restore subsystem exists that backup/restore all data (system may exit during restore)	✓	3	3
10. Import/Export Data	Able to open Word or Excel and automatically place data in it based on the parameters provided (with a good business reason)	✓	6	6
11. External APPLICATION / Services	Integrate an existing web service into your application (with good business reason)	✓	3	3



Topic	Level		Marks	MAX	Total
12. Multiplatform processing for an appropriate business reason	Appropriate business use of static views on an alternative platform.	✓	3	18	
	Appropriate use of dynamic views on an alternative platform (i.e. data is displayed from the system's database)	✓	3		
	Appropriate use of substantial dynamic views on an alternative platform (i.e. both reading and writing data from the system's database)	✓	9		
	Uploading a file through an alternative platform onto the system's database.	✓	3		
15. Programming Principles	The use of a data layer to facilitate interaction between your database and your business layer	✓	3	12	
	The use of an API to facilitate interaction between your business layer and your presentation layer	✓	6		
	Comprehensive use of stored procedures and/or triggers and/or jobs.	✓	3		
Complexity Marks				170	



11. Sign off by Client

Deliverable Name: Project Proposal

Deliverable Number: 1

Delivered on Date: 11 April 2021

Client name: Johann van Heerden Art Gallery

Approving Client Representative: Miekie Lourens

Project Leader: Dean Botha

Deliverable Approval

Signing off this document signifies that the client is satisfied with the deliverables listed above. The client acknowledges the accuracy of all aspects related to the Gallery. The client is also satisfied in the way we approached the proposed system and how we have worked together with the client in a respectful and efficient manner.

Client Signature



Project Leader Signature



Signed on: 10 April 2021



12. Document Conclusion

In conclusion the document above provides the description of the organisation and identifies prominent issues (problems) that the current system of Johann Van Heerden is currently facing. This document also provides plausible solutions to the problems that have been identified. Tests have been conducted in accordance to the feasibility analysis to enable us to determine the best solution possible.