

### Chambers of the Burning Ashes System

# Project Documentation Submitted to the Faculty of the School of Computing and Information Technologies

Asia Pacific College

In Partial Fulfillment of the Requirements for Introduction to Systems and Design for CS/IT M/S CSPROJ

Ву

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### **Executive Summary**

Chambers of the Burning Ashes (CBAS) is a software solution that aims to replace the current document management system of the St Alphonsus Mary de Liguori Parish which is currently only done manually. Due to the current system, they encounter problems such as duplicated bookings due to human error, forgetting that certain columbaries are already booked prior, and loss of records due to natural disasters such as typhoons. As such, the primary objective of this project is to develop a web-based system using the Django Framework, Python, Tesseract, Nextcloud, and MySQL for the Parish. This is to improve the document management system and provide security for document records. The target audience for this project is the Parish officers and admins. The project will follow an Agile-Scrum development methodology, with iterative cycles of requirements gathering, design, development, and testing. The expected outcome for this undertaking is a working software solution integrated into the system of St Alphonsus Mary de Liguori Parish.

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Table 1: Comments Matrix

Section	Comments	Status/To-Do
ERD	- Remove columbary records that reference parish staff	Completed
Objectives	- Objectives are not SMART	Completed
evel 1 DFD	- Add a decision tree for processes involving customers	Completed
Swimlanes	- Include identifiers	Completed
RD Clarifications	- Clarify if one vault includes multiple urns	Completed
	- Add columns for status, years, and inurnment date	Completed
	- Ensure appropriate data types	Completed
	- Parish admin should be categorized, not added as a table	Completed
Columbarium ERD	- Add columns for cost, location, and size	Completed
	- Customer inquires about columbarium	Completed
	- Columbarium can be inquired by many customers	Completed
	- Identify which agreements are within scope	Completed
	- Partial payments should have a separate one-to-many table	To-Do
	- Beneficiaries should have a separate table	Completed
	- Clarify the number of urns per vault	Completed
Hosting	- Consider replacing hosting with Cloudflare	To-Do

### I. Introduction

### 1.1 Project Context

St Alphonsus Mary de Liguori Parish is a Catholic church located in Humabon Place, barangay Magallanes, Makati, Philippines. They offer a variety of services such as funerals, weddings, and columbarium services. It was originated by the Roman Catholic Archdiocese of Manila and was established on August 2, 1967. The Roman Catholic Archdiocese of Manila is one of the oldest and most prominent Catholic jurisdictions in the Philippines. Established on February 6, 1579, by Pope Gregory XIII, it serves as the metropolitan see for the ecclesiastical province of Manila.

The church's establishment and relevance are still strong; however, a lot of its processes still use dated methods. With these methods and many customers, the process has room for human errors such as duplicated records, loss of records, wrong input information, miscommunication, and missing records. This leads to the use of modern methods such as the utilization of technology to automate their processes and aid them in their accommodation of the customers.

To address these issues, the study aims to design and implement a modern, user-friendly system to automate and streamline these processes. The developers will bridge the church's gap in modern technology knowledge by creating a system that simplifies operations for the benefit of both the church staff and its customers.

### 1.2 Statement of the Problem

- 1. Difficulty keeping track of available columbaries leading to a duplication of records, customer payment status, and contract validity.
- 2. Outdated and inefficient retrieval of vault information.
- 3. The parish lacks a facility to store customer and vault information

### 1.3 Objectives

To answer the identified problems, the project aims to design a customized local web application. To be specific, this project aims to:

- 1. Develop a local web application to manage, available columbaries, customer transactions, and other relevant documents with 99% accuracy.
- 2. Create a secure customer portal with retrieval of vault information with a 3-second data access, and multi-factor authentication.
- 3. Implement automated daily backups with 100% success rate, and a 30-minute restoration time.

### 1.4 Significance of the Project

The Chambers of the Burning Ashes System (CBAS) is significant for its potential to modernize and improve the outdated and inefficient system at St. Alphonsus Mary de Liguori Parish, thereby reducing human errors and improving operational efficiency. By transitioning from manual record-keeping to a centralized, secure, and automated document management system, the church can ensure accurate tracking of columbaries, safeguard customer data, and provide better service to its community.

- 1. St. Alphonsus Mary de Liguori Parish employees. By implementing a document management system, employees will benefit from a streamlined workflow, reducing the time and effort required to manage columbarium records. This system will enable employees to accurately add, remove, and track columbaries, effectively eliminating issues like duplicate sales and lost records. The inclusion of automated data backup and encryption will ensure that records are secure and easily recoverable, mitigating risks associated with human error and data loss.
- 2. Customers. The implementation of a secure and automated document management system ensures that their data is handled with the utmost care, significantly reducing the risk of errors, loss, or miscommunication. In addition, the improved tracking of payment statuses will offer customers clear and accurate information about their transactions, fostering trust and satisfaction with the church's services.

### 1.5 Scope and Limitations

### 1.5.1 Scope

The research is limited to the creation and implementation of the new system. The system will be making use of MySQL as the main organization storage system and Nextcloud as the backup organization storage system. Focusing on cloud storage, it does not include services irrelevant to the system's design. The system will feature a user-friendly interface capable of catering to beginners in IT using the Django framework, an integrated cloud database backup storage through Nextcloud, an Optimal Character Recognition for data transferring, report generation for sales and availability of the columbaries, and analytics that utilizes machine learning. As the system will have analytics, it will also be making use of the relevant Python libraries for machine learning. Libraries like matplotlib will be heavily used for the analytics.

### 1.5.2 Limitations

As the system will make use of Django, it will not be using other frameworks such as Laravel and Codelgniter. The system does not cover other areas and services of the Parish aside from those related to the columbary services. Examples are the following: wedding services, funerary services, etc. Furthermore, the system will only be sought to improve on the current manual services and will not be in the online space.

## II. Data Flow Diagram

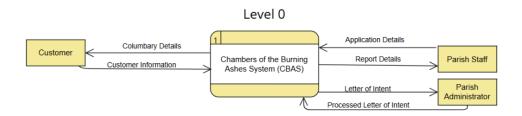


Figure 1: Level 0 Data Flow Diagram

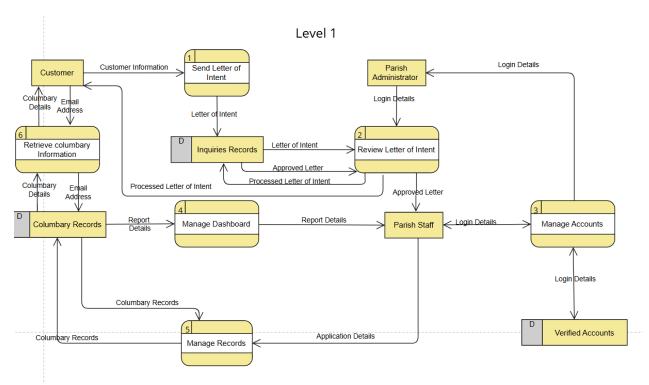


Figure 2: Level 1 Data Flow Diagram

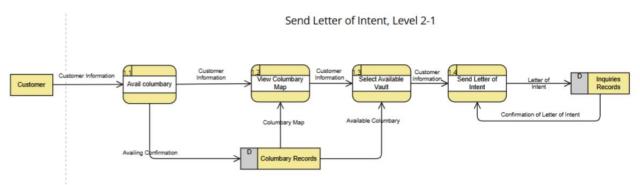


Figure 3: Level 2-1, Send Letter of Intent

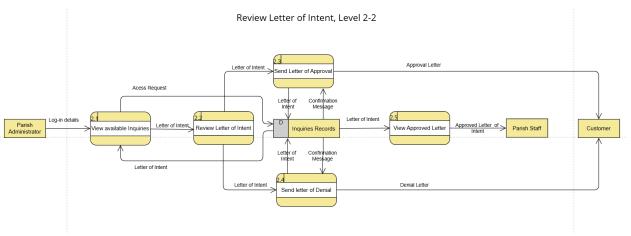


Figure 4: Level 2-2, Review Letter of Intent

## Manage Accounts 2-3

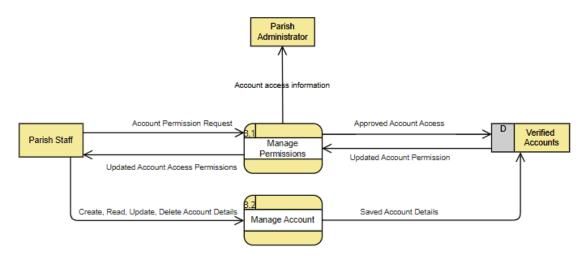


Figure 5: Level 2-3, Manage Accounts

# Manage Dashboard, Level 2-4

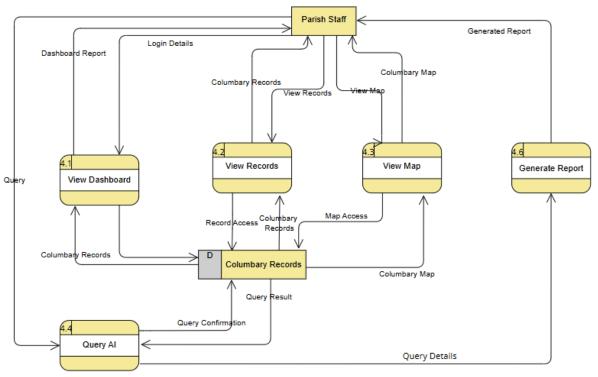


Figure 6: Level 2-4, Manage Dashboard

## Manage Applications, Level 2-5

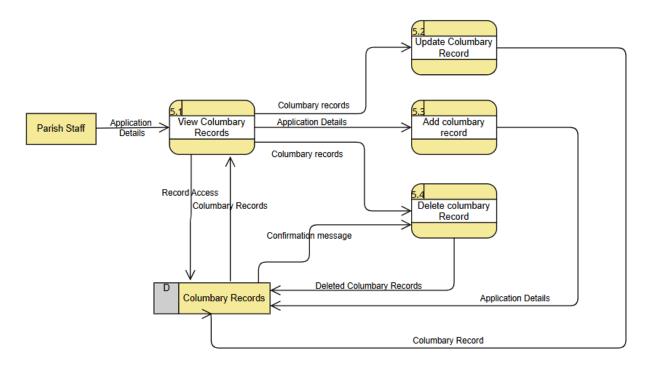


Figure 7: Level 2-5, Manage Applications

## Retrieve Columbary Information, Level 2-6

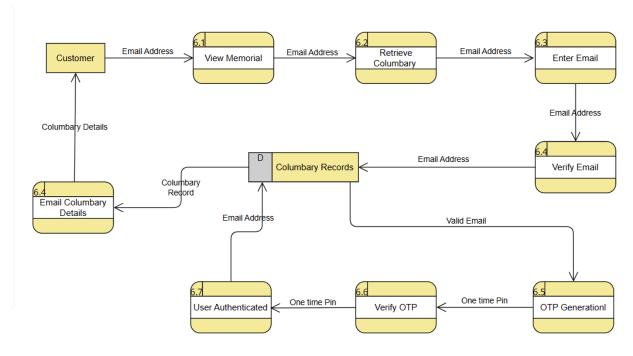


Figure 8: Level 2-6, Retrieve Columbary Information

# III. Use Case Diagram

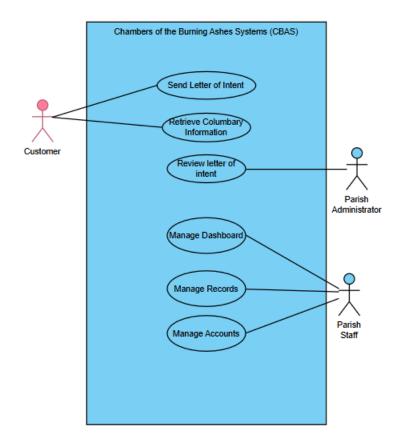


Figure 9: Use Case Diagram

## 3.1 Use Classes and Characteristics

Table 2: Roles & Description

Roles	Description
Parish Office Staff	The main user of the new system that is being
	developed
Parish Administrator	The one who oversees the management of
	columbaries and check them sometimes.
Customer	The possible consumers of the columbary
	services offered by the Parish

# **3.2 Fully Dressed Use Cases** *Table 3: Send Letter of Intent*

Use Case Name	Send letter of intent	
Use Case Number	UC-01	
Actors	Customer, Parish Administrator	
Description	This use case presents how the customer	
	sends the letter of intent to the parish.	
Pre-Conditions	The columbary map and pricing	
	information are up to date.	
	The parish CBA systems are	
	operational and accessible.	
	Customer wants to avail a columbary.	
Post Conditions	The customer successfully views	
	available columbaries and their prices.	
	A letter of intent with the customer's	
	information is generated and sent via	
	email to the parish administrator.	
Main Scenario	Customer visits the system.	
	2. Customer visits the virtual tour and	
	looks for columbaries.	
	3. Customer views the pricing and	
	sections of each columbary.	
	4. Customer goes back to the main home	
	page and clicks the "avail now" button.	
	<ol><li>Terms &amp; conditions will appear before proceeding.</li></ol>	
	6. Customer reads the terms & conditions	
	7. Customer fills in customer information	
	such as email, Cellphone number,	
	Name, and address	
	8. Customer clicks on the "send" button	
	to send a letter of intent to the Parish.	

Table 4: Retrieve Columbary Information

Use Case Name	Retrieve Columbary Information
Use Case Number	UC-02
Actors	Customer, Parish Staff
Description	This use case describes how the system
	retrieves information relevant to the customer.

Pre-Conditions	<ul> <li>The customer has previously applied for and purchased a columbary and provided a phone number and email address during the application process.</li> <li>The customer has access to the internet and a valid email account.</li> <li>The CBA system website is operational, and the customer's columbary information is stored and accessible within the system.</li> <li>Customer receives and inputs the correct one-time pin.</li> </ul>
Post Conditions	<ul> <li>The customer successfully retrieves their columbary information via email, including any relevant documents.</li> <li>The system logs the retrieval request and verification process for auditing purposes.</li> <li>The system ensures that the customer's information is securely transmitted and accessed.</li> </ul>
Main Scenario	<ol> <li>Customers navigates to the retrieve columbary tab.</li> <li>Customer clicks the retrieve information button.</li> <li>Customer inputs their email address.</li> <li>The system will generate an OTP and send it to the customer's email.</li> <li>Customer receives their OTP.</li> <li>Customer inputs their OTP code into the website.</li> <li>The customer receives an email containing minimal columbary information.</li> </ol>

Table 5: Review Letter of Intent

Use Case Name	Review letter of intent
Use Case Number	UC-03
Actors	Parish Administrator, Customer, Parish Staff
Description	This use case describes how the parish
	administrator reviews the letter of intent sent

	by the customer and decides either to approve
D 0 100	or deny it.
Pre-Conditions	The Parish Administrator logged in to
	the email they use for the CBA system.
	A letter of intent has been sent by the
	customer.
Post Conditions	The inquiry has been reviewed.
	<ul> <li>A decision has been made.</li> </ul>
	Customer Receives letter of
	approval/denial through email.
	The approved letter of intent is sent to
	the Parish Staff.
Main Scenario	The parish administrator opens their
	email for notifications regarding the
	letter of intent.
	2. Parish administrator chooses a letter of
	intent
	3. The parish administrator reviews the
	letter of intent.
	4. The parish administrator approves the
	letter of intent.
	5. The system sends a letter of approval
	to the customer's email.
	6. The system notifies and sends the
	approved letter of intent to the Parish
	Staff.
Alternate Scenario	The parish administrator opens their
	email.
	2. The parish administrator reviews the
	letter of intent.
	3. The parish administrator denied the
	letter of intent.
	4. The system sends a letter of denial to
	the customer's email.

Table 6: Manage Dashboard

Use Case Name	Manage Dashboard
Use Case Number	UC-04
Actors	Parish Staff
Description	This use case describes how the parish staff
	views necessary customer and columbary

	information and how they manage the CBA
	systems dashboard and Al assistant.
Pre-Conditions	The parish staff is logged into the CBA
	system.
	<ul> <li>The CBA system is fully operational.</li> </ul>
	All records are viewable.
	<ul> <li>Columbary information is viewable.</li> </ul>
	CBA system Al assistant is functional.
Post Conditions	• PA
Main Scenario	
	<ol> <li>Parish Staff logs in to the system</li> </ol>
	2. Parish views the dashboard
	3. Parish Staff views the columbary map
	4. Parish Staff can view the available
	columbaries
	5. Parish Staff navigates to the Al
	assistant chatbot
	6. Parish staff inputs his prompt
	7. Ai assistant answers the query.

Table 7: Manage Application

Use Case Name	Manage Records			
Use Case Number	UC-05 customer			
Actors	Parish Staff			
Description	This use case describes how the parish staff			
	opens the CBA system to update, create and			
	delete customer and columbary records.			
Pre-Conditions	The parish staff member has valid login			
	credentials (username and password).			
	The CBA system is operational and			
	accessible.			
	The parish staff's access permissions			
	are properly configured in the system.			
	Parish staff is Logged-in in the system			
Post Conditions	The parish staff perform their duties,			
	including managing customer records.			
	The Parish staff can add, edit and			
	delete records.			
	Parish staff can scan new applications			
Main Scenario	The parish staff logs in to the system			

0 The marish should be a thought and in a solid
2. The parish staff has three options add,
edit and delete
<ol><li>The parish staff clicks on the "add"</li></ol>
button to add new records.
4. The parish staff clicks on an existing
columbary record and clicks on edit.
5. The Parish staff opens an existing
columbary record and clicks on delete.
6. The parish staff clicks on the "Save
button"

Table 8: Manage Accounts

Use Case Name	Manage Accounts			
Use Case Number	UC-06			
Actors	Parish Staff, Parish Administrator			
Description	This use case describes how the parish staff			
	manage parish accounts on the CBA system.			
Pre-Conditions	<ul> <li>The parish staff is logged into the CBA system with the necessary permissions to manage accounts.</li> <li>The parish staff has navigated to the main dashboard of the CBA system.</li> <li>The parish admin can be granted permissions to the system</li> </ul>			
Post Conditions	The parish staff deletes, updates, manages permissions or creates an account for the CBA system.			
Main Scenario	<ol> <li>The parish staff navigates to the accounts tab.</li> <li>The parish Staff can then create, update, manage permissions, and delete accounts through the CBA System.</li> <li>Parish staff manage access permissions to the Parish Administrator.</li> </ol>			

## **IV. Test Cases**

Test Case ID		TC_01	Test Case Des	cription	Test if send le	etter of intent wo	orks				
Created By		Kyle	Reviewed By		Janson		Version		1	.0	
QA Tester's L	og	Initial testing v	when creating c	ustomer inquiry	section of we	bsite.					
Tester's Nam	e	David	Date Tested		TENTATIVE Test Case		Test Case (Pas	Pass/Fail/Not Not Executed			
S#	Prerequisites:				S#	Test Data					
1	Access to Inte	rnet			1	ping -t website.com					
2	Access to the	website			2	tracert website.com					
					3 nmap commands to check vulnerability						
Test Scenario	Verify whether	the customer i	nquiry works or	not.							
Step#	Step	Details	Expecte	d Results		Actual Result	S	Pass / Fail /	/ Not executed /	Suspended Suspended	
1	Customer visit	ts the system	Site should op	en	As Expected			Not Executed			
2	Customer Nav	igates to the	Columbary ma	p should open	As Expected			Not Executed			
3	Customer clic	ks "avail now"	360 View of the	e surrounding	As Expected			Not Executed			
4	Customer viev	v available	Terms and con	ditions should	As Expected			Not Executed			
5	Customer cho	oses	Inquiry form sh	nould appear	As Expected			Not Executed			
6	Customer view	vs the pricing	Al generate the	inquiry form	As Expected			Not Executed			
7	Customer cho	oses a	Inquiry form sh	nould appear	As Expected			Not Executed			
8	Terms & condi	tions will	Al generate the	inquiry form	As Expected			Not Executed			
9	Customer read	ds the terms &	Inquiry form sh	nould appear	As Expected			Not Executed			
10	Customer fills	in customer	Al generate the	inquiry form	As Expected			Not Executed			

Figure 10: TC-01

Test Case ID		TC_02	Test Case Des	cription	Retrieve colu	mbary informati	on			
Created By		David	Reviewed By		Kyle		Version		1	.0
QA Tester's Lo	g	Testing if cost	umer retrieval o	f information w	rorks					
Tester's Name		Jacob	Date Tested		TENTATIVE		Test Case (Pas	s/Fail/Not	Not Executed	
S#	Prerequisites:				S#	# Test Data				
1	The customer	has previously	registered and		1	Registered email address of the customer. (dummy)				
2	The CBAS syst	em is online an	d operational.		2	Access to the customer's email inbox.				
3	The customer	has access to t	he registered		3	Internet access to visit the CBAS website.				
4	The columbar	y information is	stored in the	red in the 4 Columbary ID or identifier stored in the system.			m.			
		1								
Test Scenario	Retrieve Colur	mbary Informati	ion							
Step#	Step	Details	Expecte	d Results		Actual Results	3	Pass / Fail	/ Not executed /	Suspended
1	Customers na	uidatas ta tha	The "Retrieve (	Columban'	As Expected			Not Executed		
2	Customer clic		The system sh		As Expected			Not Executed		
			•					Not Executed		
3		uts their email	The system sh		As Expected					
4	The system wi		The system su		As Expected			Not Executed		
5	Customer inpu	uts their OTP	The Customer		As Expected			Not Executed		
6	The customer	receives an	System sends	email to the	As Expected			Not Executed		

Figure 10: TC-02

Test Case ID		TC_03	Test Case Des	cription	Review Letter of intent					
Created By		David	Reviewed By		Kyle		Version		1	.0
A Tester's Log	<u>g</u>	Initial testing o	olumbary map	of the website	works					
ester's Name		Jacob	Date Tested		TENTATIVE		Test Case (Pas	ss/Fail/Not	Not Executed	
S#	Prerequisites:				S#	Test Data				
1	Parish access	the CBAS			1	Access to the CBAS system.				
2	Inquiries recor	ds are available	9		2 Access to the CBAS website					
3	The website is	functional.			3 URL to the CBAS homepage.					
est Scenario	Viewing Colun	nbary Map								
Step#	Step I	Details	Expecte	d Results		Actual Results	S	Pass / Fail	/ Not executed /	Suspended
1	The parish adn	ninistrator	Homepage loa	nds	As Expected			Not Executed		
2	Parish adminis	strator	The inquiry tab	will execute	As Expected			Not Executed		
3	The parish adn	ninistrator	The Parish suc	cessfully	As Expected			Not Executed		
4	The parish adn	ministrator	Sends letter o	fintent	As Expected			Not Executed		
5	The system se	nds a letter of	Customer rece	evies email	As Expected			Not Executed		
6	5. The system	sends a letter	Parish staff red	cevies the	As Expected			Not Executed		

Figure 11: TC-03

	TC_04	Test Case Des	cription	Manage Dash	Manage Dashboard						
	Janson	Reviewed By		Jacob		Version		1	.0		
	T	ļ									
	lesting wher	n dashboard work	s or not.								
	David	Date Tested		TENTATIVE		Test Case (Pas	ss/Fail/Not	Not Executed			
Prerequisites	:			S#	Test Data						
Access to Inte	ccess to Internet			1	username of parish staff						
Access to the	website			2	password of parish staff						
Must be paris	h staff			3	3 ping website						
Parish staff lo	gged in the sy	stem		4	4						
CBA System i	s operational a	and accessible.		5							
Verify if docu	ment validatio	n for columbary p	urchase works								
Step	Details	Expecte	d Results		Actual Results	3	Pass / Fail	/ Not executed /	Suspended		
Parish Staff lo	gs in to the	Successfully le	ogs in	As Expected			Not Executed				
Parish views t	he dashboard	Successfully v	iews the	As Expected			Not Executed				
Parish Staff v	ews the	System provid	es the Parish	As Expected			Not Executed				
Parish Staff c	an view the	In the map the	Parish staff	As Expected			Not Executed				
Parish Staff n	avigates the	Al prompt is pr	ovided	As Expected			Not Executed				
Al assistant is	now opened	Al assistant lis	tens to	As Expected			Not Executed				
Parish staff in	puts his	Al assistant re	cognize the	As Expected			Not Executed				
Ai assistant a	nswers the	Ai assistant ge	nerates the	As Expected			Not Executed				

Figure 12: TC-04

Test Case ID		TC 05	Test Case Des	rintion	Manage Applic	-4:				
				приоп		ation				
Created By		Janson	Reviewed By		Jacob		Version		1.0	
QA Tester's Lo	g	Testing wether	the staff could	edit/delete cus	tomer records					
Tester's Name	)	David	Date Tested		TENTATIVE		Test Case (Pas	s/Fail/Not	Not Executed	
S#	Prerequisites:	erequisites:		S#	Test Data					
1	Access to Inte	to Internet 1 use				username of p	arish staff			
2	Access to the	website			2	2 password of parish staff				
3	Must be parish	n staff			3	Customer data				
4	Parish staff log	gged in the syste	em							
5	CBAS is opera	tional								
Test Scenario	Verify if docun	nent validation f	for columbary p	urchase works						
Step#	Step I	Details	Expecte	d Results		Actual Results	3	Pass / Fail	/ Not executed /	Suspended
1	The parish sta	ff logs in to the	homepage sho	uld open	As Expected			Not Executed		
2	The parish sta	ff navigates to	records page s	hould open	As Expected			Not Executed		
3	The parish sta	ff has three	records page s	hould open	As Expected			Not Executed		
4	The parish		customer data	should be	As Expected			Not Executed		
5	The parish		homepage sho	uld open	As Expected			Not Executed		
6	The Parish		records page s	hould open	As Expected			Not Executed		

Figure 13: TC-05

Test Case ID		TC_06	Test Case Des	cription	Testing Account Management					
Created By		Jacob	Reviewed By		David		Version		1	.0
QA Tester's Lo	g	Initial testing v	when creating c	ustomer inquiry	section of we	bsite.				
Tester's Name	)	Kyle	Date Tested		TENTATIVE		Test Case (Pas	ss/Fail/Not	Not Executed	
S#	Prerequisites:				S#	S # Test Data				
1	Access to Inte	rnet			1 username of parish staff					
2	Access to the	vebsite			2	2 password of parish staff				
3	Customer con	npletes necessa	ary steps		3	Customer documents				
4	Parish Staff is	logged in the sy	stem							
Test Scenario	Verify if docun	nent validation	for columbary p	urchase works						
Step#	Step	Details	Expecte	d Results		Actual Results	S	Pass / Fail / Not executed / Suspended		Suspended
1	Input login info	ormation	CBAS homepa	ge should	As Expected			Not Executed		
2	Navigate to m	anage	Manage Accou	ıtns page	As Expected			Not Executed		
3	The parish Sta	ff can then	Can manage a	ccounts	As Expected Not Executed					

Figure 14: TC-06

# V. Activity Diagrams

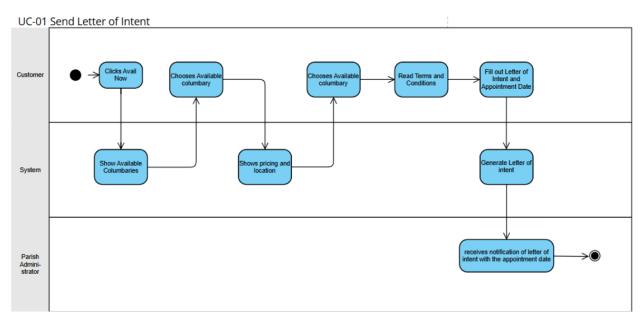


Figure 15: UC-01, Send Letter of Intent

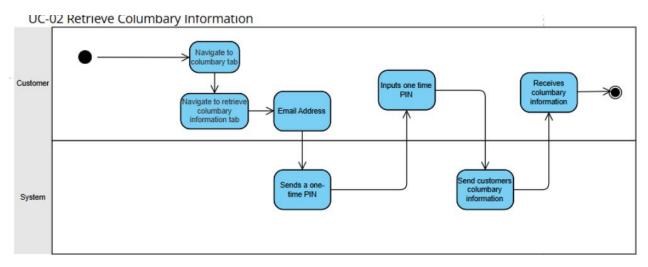


Figure 16: UC-02, Retrieve Columbary Information

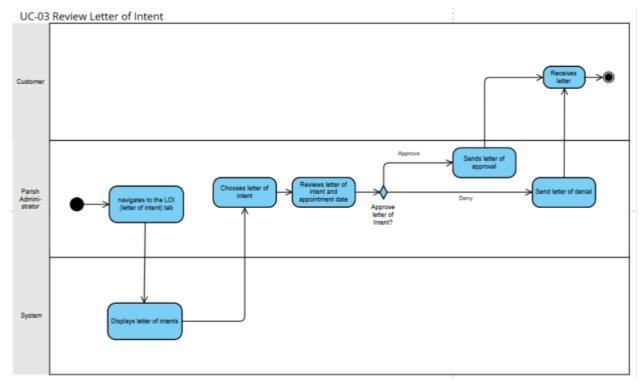


Figure 17: UC-03, Review Letter of Intent

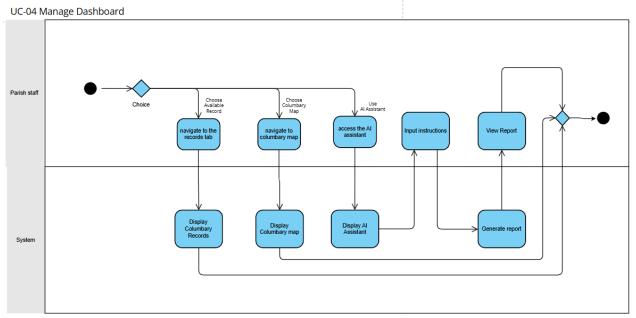


Figure 18: UC-04, Manage Dashboard

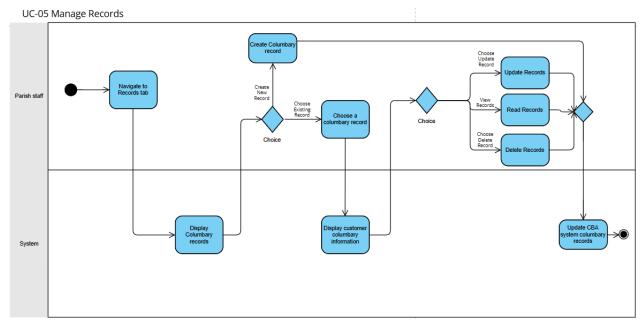


Figure 19: UC-05, Manage Records

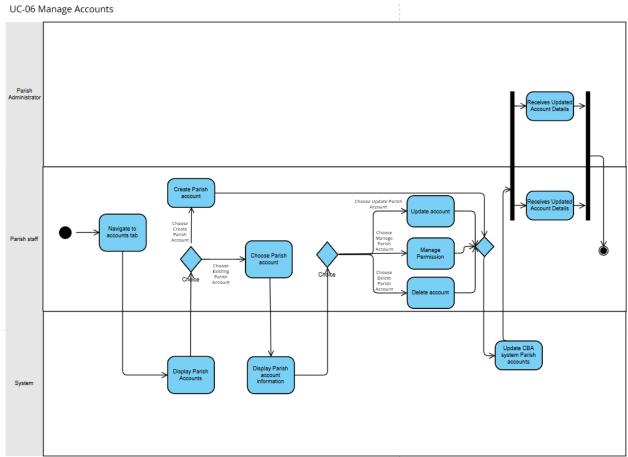


Figure 20: UC-06 Manage Accounts

# VI. Database Design (Entity Relationship Diagram)

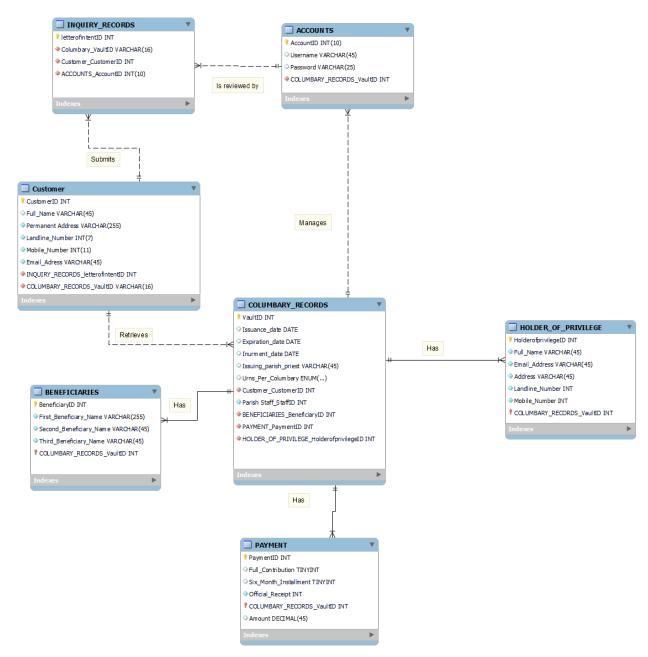


Figure 21: Entity Relationship Diagram

Table 9: Data Dictionary

TABLE NAME  ATTRIBUTE NAME  TYPE  OR  FK  Inquiry Records  Letter_Of_IntentID  Columbary_VaultID  TYPE  PK  FK REFERENC  OR  FK  VARCHAR  FK  Columbary_Records	ED TABLE
Inquiry Records Letter_Of_IntentID INT PK	ED TABLE
Inquiry Records Letter_Of_IntentID INT PK	
	cords
Parish_Administrator_AdminID INT FK Parish_Adminis	
Device Chaff Chaff D	.c. acoi
Customer_CustomerID INT FK Parish_Staff Customer	
Gustomer	
Customer CustomerID INT PK	
Full_Name VARCHAR	
Permanent_Address INT	
Landline_Number INT	
Mobile_Number VARCHAR	
FN Inquiry Recor	ds
inquiry_Records_Letter_or_intentib   INT	
Columbary_Records_VaultID	
INT FK Columbary_Re	ecords
COLUMBARY_RECORDS VaultID VARCHAR PK	
Issuance_Date DATE	
Expiration_Date DATE	
Inurnment_Date DATE	
Issuing_parish_priest VARCHAR	
Urns_Per_Columbary ENUM	
Customer_CustomerID INT FK Customer	
Parisn_Staff_D INI Parisn_Staff	
BENEFICIARIES_ BeneficiaryID INT FK BENEFICIARIES	3
Parisn_Staff D	3
BENEFICIARIES_ BeneficiaryID INT FK BENEFICIARIES	
Parisn_Staff D	
Parisn_Staff_D  BENEFICIARIES_BeneficiaryID  PAYMENT_PaymentID  HOLDER_OF_PRIVILEGE_ HolderOfPrivilegeID  ACCOUNTS  AccountID Username Password  PARISH_STAFF  StaffID  INT FK BENEFICIARIES PAYMENT FK PAYMENT FK FK PAYMENT FK FK PAYMENT FK PAYMENT FK PAYMENT FK PAYMENT FK	
Parisn_Staff_D BENEFICIARIES_BeneficiaryID PAYMENT_PaymentID HOLDER_OF_PRIVILEGE_ HolderOfPrivilegeID  ACCOUNTS  AccountID Username Password  PARISH_STAFF  StaffID Accounts_AccountID INT INT INT FK BENEFICIARIES PAYMENT HOLDER_OF_F FK PAYMENT FK FK VARCHAR VARCHAR VARCHAR VARCHAR INT FK ACCOUNTS	
Parisn_Staff_D BENEFICIARIES_BeneficiaryID PAYMENT_PaymentID HOLDER_OF_PRIVILEGE_ HolderOfPrivilegeID  ACCOUNTS  AccountID Username Password  PARISH_STAFF  StaffID Accounts_AccountID INT PK Parisn_Staff FK BENEFICIARIES PAYMENT FK ACCOUNTS FK ACCOUNTS PARISH_ADMINISTRATOR AdminID	
Parisn_Staff_StaffID BENEFICIARIES_BeneficiaryID PAYMENT_ PaymentID HOLDER_OF_PRIVILEGE_ HolderOfPrivilegeID  ACCOUNTS  AccountID Username Password Password  PARISH_STAFF  StaffID Accounts_AccountID INT FK PArisn_Staff BENEFICIARIES PAYMENT HOLDER_OF_F FK  FK PAYMENT HOLDER_OF_F PAYMENT HOLDER_OF_F PAYMENT HOLDER_OF_F FK ACCOUNTS  INT PK ACCOUNTS  PARISH_ADMINISTRATOR AdminID Accounts_AccountID INT PK ACCOUNTS	
Parisn_Staff D BENEFICIARIES_BeneficiaryID PAYMENT_ PaymentID HOLDER_OF_PRIVILEGE_ HolderOfPrivilegeID  ACCOUNTS  AccountID Username Password  PARISH_STAFF  Staff D Accounts_AccountID  PARISH_ADMINISTRATOR ACCOUNTS  ACCOUNTS  ACCOUNTS  ACCOUNTS  ACCOUNTS  ACCOUNTS  ACCOUNTS  ACCOUNTS  INT PK ACCOUNTS  INT PK ACCOUNTS  PARISH_ADMINISTRATOR ACCOUNTS  HOLDER_OF_PRIVILEGE  HolderOfPrivilegeID  INT PK ACCOUNTS  HOLDER_OF_PRIVILEGE  HolderOfPrivilegeID  INT PK	
Parisn_Starr_StarrID BENEFICIARIES_BeneficiaryID PAYMENT_ PaymentID HOLDER_OF_PRIVILEGE_ HolderOfPrivilegeID  ACCOUNTS  AccountID Username Password  PARISH_STAFF StaffID Accounts_AccountID NT PARISH_ADMINISTRATOR AdminID Accounts_AccountID HOLDER_OF_PRIVILEGE NACCOUNTS  INT PK ACCOUNTS  PARISH_ADMINISTRATOR AdminID Accounts_AccountID  INT PK ACCOUNTS  HOLDER_OF_PRIVILEGE HolderOfPrivilegeID Full_Name  VARCHAR	
PARISH_STAFF  PARISH_ADMINISTRATOR PARISH_STAFT   HolderOfPrivilegeID  PARISH_ADMINISTRATOR PARISH_STAFT   HolderOfPrivilegeID  PARISH_ADMINISTRATOR   HolderOfPrivilegeID  PARISH_STAFF   HolderOfPrivilegeID  PARISH_STAFF   HolderOfPrivilegeID  PARISH_ADMINISTRATOR   HolderOfPrivilegeID  PARISH_ADMINISTRATOR   HolderOfPrivilegeID  HolderOfPrivilegeID  PARISH_ADMINISTRATOR   HolderOfPrivilegeID Full_Name   FK   VARCHAR   FK   ACCOUNTS  PARISH_ADMINISTRATOR   HolderOfPrivilegeID Full_Name   FK   VARCHAR   FK   VARCHAR   FM   FK   FK   FK   FK   FK   FK   FK	
Parisn_Starr_StarrID BENEFICIARIES_BeneficiaryID PAYMENT_ PaymentID HOLDER_OF_PRIVILEGE_ HolderOfPrivilegeID  ACCOUNTS  AccountID Username Password  PARISH_STAFF StaffID Accounts_AccountID NT PARISH_ADMINISTRATOR AdminID Accounts_AccountID HOLDER_OF_PRIVILEGE NACCOUNTS  INT PK ACCOUNTS  PARISH_ADMINISTRATOR AdminID Accounts_AccountID  INT PK ACCOUNTS  HOLDER_OF_PRIVILEGE HolderOfPrivilegeID Full_Name  VARCHAR	

	Mobile_Number	INT		
	COLUMBARY_RECORDS_VaultID	INT		
			FK	COLUMBARY_RECORDS
BENEFICIARIES	BeneficiaryID	INT	PK	
	First_Beneficiary_Name	VARCHAR		
	Second_Beneficiary_Name	VARCHAR		
	Third_Beneficiary_Name	VARCHAR		
	COLUMBARY_RECORDS_VaultID	INT	FK	COLUMBARY_RECORDS
PAYMENT	PaymentID	INT	PK	
	Full_Contribution	TINYINT		
	Six_Month_Installment	TINYINT		
	Official_Receipt	INT		
	COLUMBARY_RECORDS_VaultID	INT	FK	COLUMBARY_RECORDS

# VII. Prototype

### 7.1 High Fidelity Prototype

The following high-fidelity prototype, developed by the proponents of CBAS, illustrates the fundamental design for authentication, the dashboard, and the user interface for customer records and available columbaries.

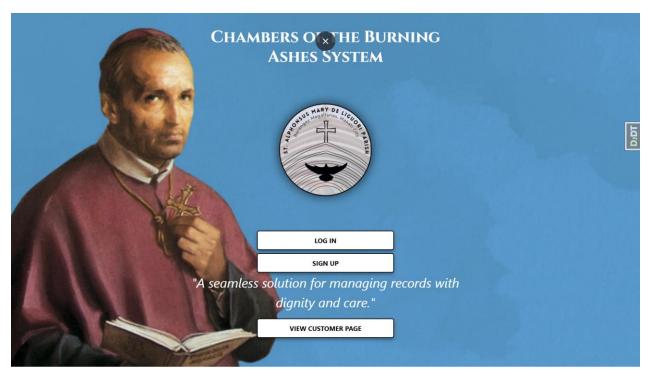


Figure 22: Authentication Page

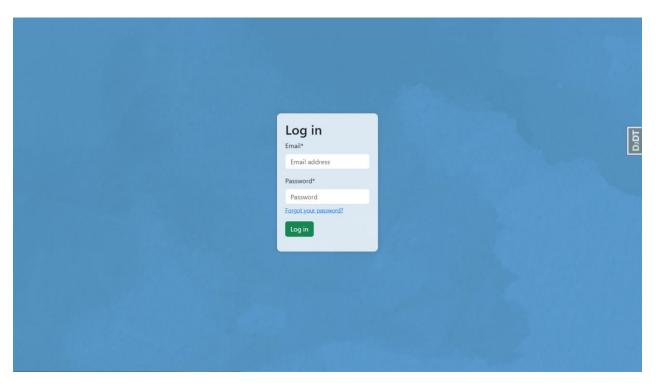


Figure 23: Login Page

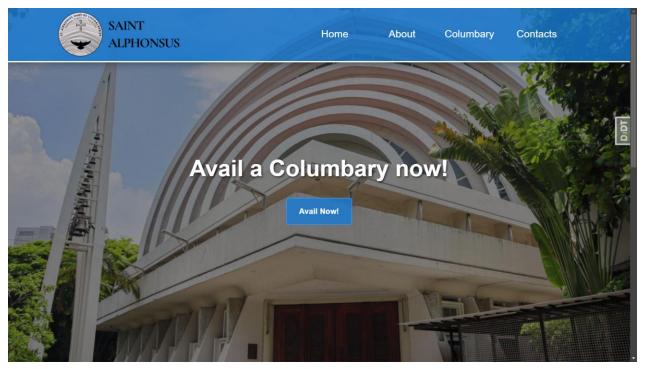


Figure 24: Home Page

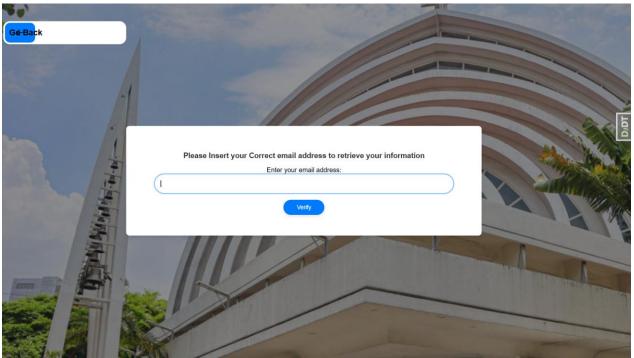


Figure 25: Record Page

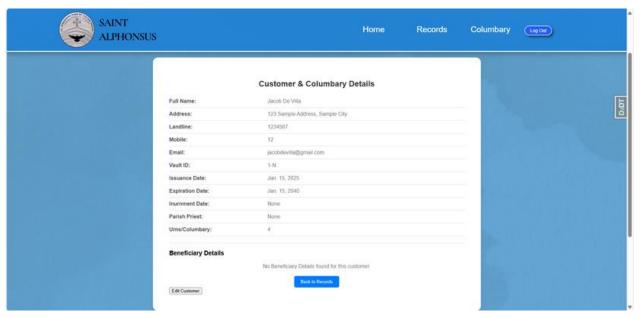


Figure 26: View Details

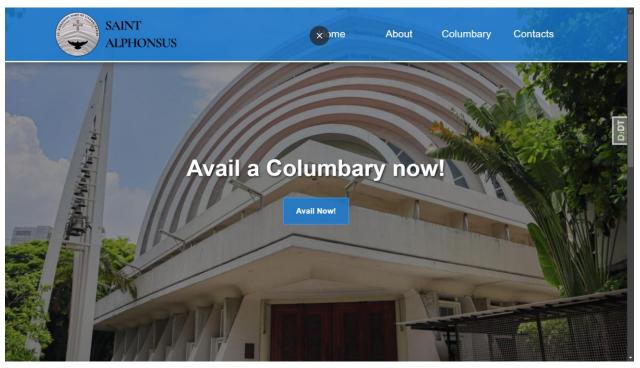


Figure 27: Customer Portal



Figure 28: Virtual Tour

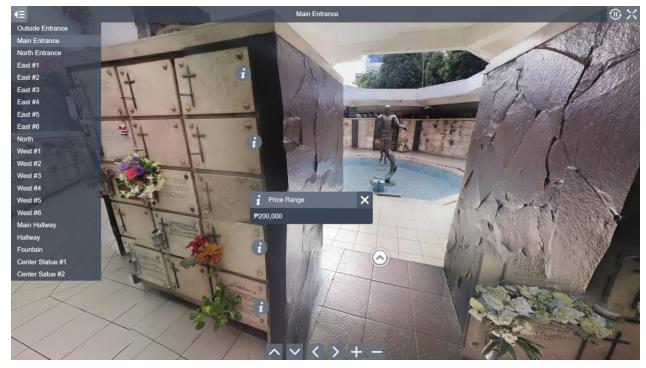


Figure 29: Price Range

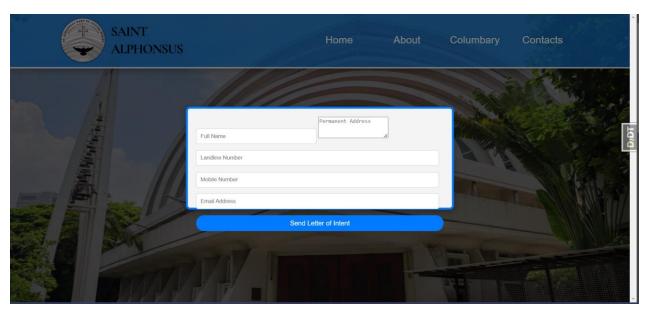


Figure 330: Send Letter of Intent

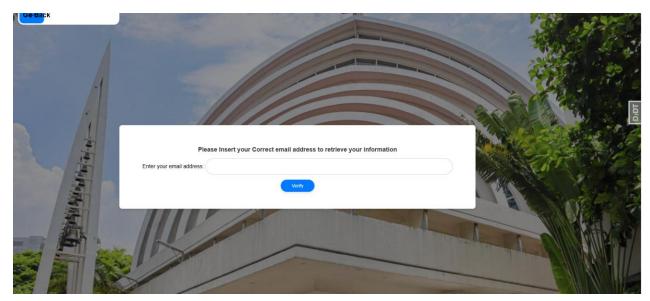


Figure 31: Retrieve Columbary

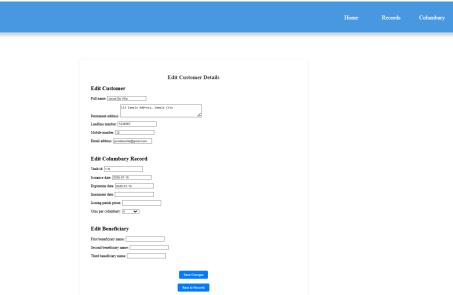
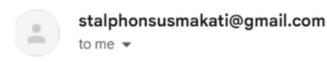


Figure 32: Edit Customer Details

# Columbary System - Verification Code Inbox ×



Dear Jacob Angelo De Villa,

Your verification code is: 318175

This code will expire in 15 minutes.

Best regards, Parish Administration

Figure 33: Verification Code

## 7.2 Technology Stack

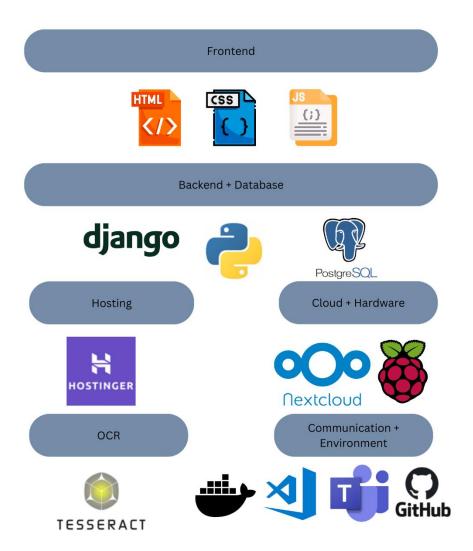


Figure 34: Technology Stack

### 7.3 Github Repository

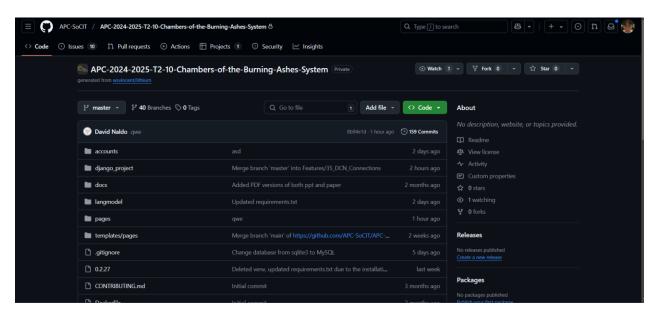


Figure 35: Github Repository

Official Phishda Chambers of the Burning Ashes System Github Repository, The repository can be accessed here: <a href="https://github.com/APC-SoCIT/APC-2024-2025-T2-10-Chambers-of-the-Burning-Ashes-System.git">https://github.com/APC-SoCIT/APC-2024-2025-T2-10-Chambers-of-the-Burning-Ashes-System.git</a>

## VIII. Appendices

### Appendix A: Project Vision

The vision for the Chambers of the Burning Ashes System (CBAS) is to revolutionize the management of columbarium services at St. Alphonsus Mary de Liguori Parish by implementing a modern, secure, and efficient web-based application. This system will streamline and automate the parish's current manual processes, significantly reducing errors and enhancing data security. By providing document management with robust backup and encryption capabilities,

CBAS will ensure accurate tracking of columbarium vaults, secure storage of customer data, and seamless retrieval of information. Ultimately, this project aims to improve operational efficiency, foster trust and satisfaction among customers, and empower parish staff with a user-friendly tool that simplifies their daily tasks.

### Appendix B: Schedule/Release Plan

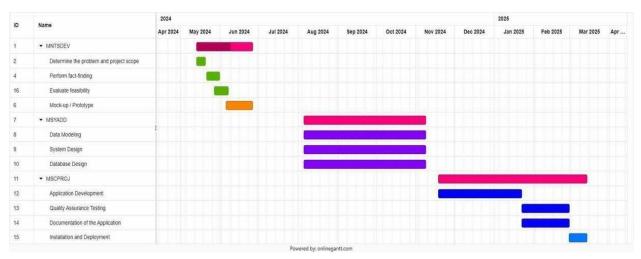


Figure 36: Log out Prompt

Target Group: St Alfonso's Parish Columbarium

**Goal**: To digitize and create a document management system with the utilization of OCR and analytics.

**Needs**: To have a web-based platform.

**Value:** The new digitalized system will increase the security of the data due to its multiplatform capabilities and help the Parish locate certain data about columbaries without physically searching for it. Additionally, it aims to visualize data and generate reports.

**Key features**: Documentation Management System, Al Voice Assistant, Analytics, Nextcloud Pi.

### **Release Plan**

Our release plan is divided into three sections according to our course subjects: MNTSDEV, MSYADD1, and MCSPROJ. The project is on schedule with the completion of Release 2, including this paper. The complete product backlog is available in Table 16.

### Release 1

- Research paper
- Presentation deck
- Low-fidelity prototype

#### Release 2

- Model diagrams
- System design
- High-fidelity prototype

### Release 3

- Functional prototype
- Deployed systems

• Quality assurance testing

## **Appendix C: Product Roadmap**

Table 10: Product Roadmap

MNSTDEV	MSYADD	MCSPROJ			
Inception	Modeling	Development			
Client Search	<ul> <li>Data Flow Diagrams</li> </ul>	<ul> <li>Functional</li> </ul>			
• Ideation	<ul> <li>Entity-relationship</li> </ul>	Prototype			
Planning	Diagrams	<ul> <li>Documentatio</li> </ul>			
Identify the	<ul> <li>Improvement of Use</li> </ul>	n			
problem/scope • Evaluate Feasibility	Case Diagram	Testing			
Meeting	Sequence Diagrams	<ul> <li>Quality</li> </ul>			
Meeting with the client	State Machine	Assurance			
Process Immersion	Diagrams	<ul> <li>Client</li> </ul>			
	Package Diagrams	Assessment Internal			
Low-Fidelity Prototyping	Design	Deployment			
<ul> <li>Create wireframe</li> </ul>	System Design	<ul> <li>Installation</li> </ul>			
<ul> <li>Conceptualize use</li> </ul>	<ul> <li>Database Design</li> </ul>	<ul> <li>Integration</li> </ul>			
process flow	High-fidelity Prototyping	External Deployment			
Dranagal	<ul> <li>Figma Model</li> </ul>	<ul> <li>User-facing</li> </ul>			
• Presentation Deck	<ul> <li>Responsive Design</li> </ul>	website			
Documentation Paper	Construction Plan	<ul> <li>Payment</li> </ul>			
Bocumentation raper	<ul> <li>Repository Generation</li> </ul>	Gateway			
	<ul> <li>Drafting of</li> </ul>				
	Documentation Plan				
	<ul> <li>Module Assignment</li> </ul>				
	<ul> <li>Team Training</li> </ul>				

## **Appendix D: Teams Meetings**

Date: 05/10/2024

Agenda: Onsite Meeting with client & visiting the Phishda team office



Figure 37: Onsite Meeting with Client

Date: 25/10/2024

Agenda: Group meeting

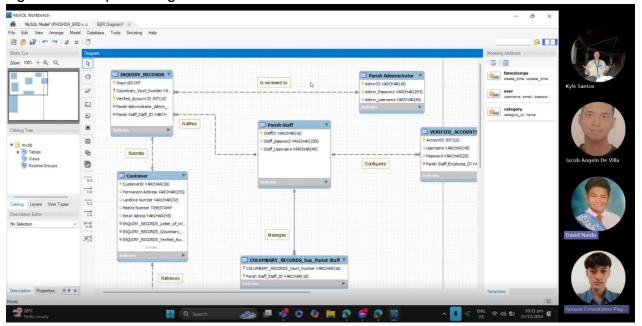


Figure 38: ERD Discussion Meeting

Date: 28/10/2024 Agenda: Group meeting

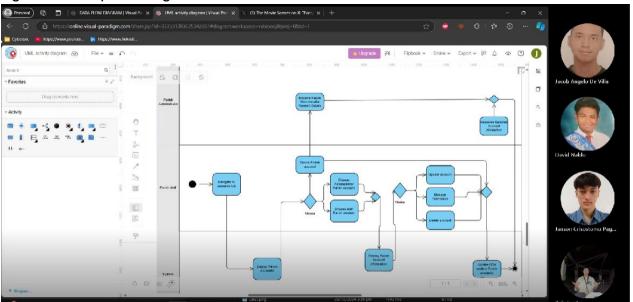


Figure 39: Activity Diagram Discussion Meeting

Date: 24/10/2024

Agenda: Meeting with consultant.



Figure 40: Consultant Meeting

Date: 28/10/2024

Agenda: Final Meeting Before Finals Defense.

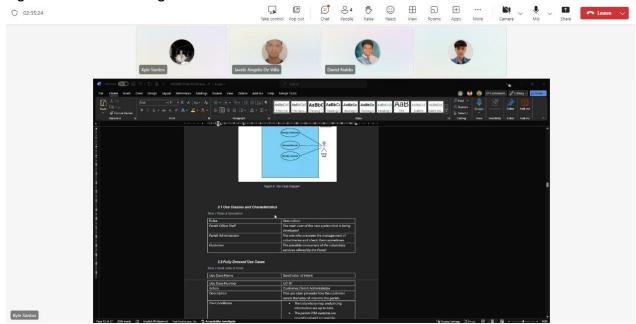


Figure 41: Final Meeting Before Finals Defense