



MAPÚA MALAYAN COLLEGES MINDANAO

Kostal Dive Travel & Tours Voucher Creation Application for Island-Hopping

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Academic Requirements for the Subject

IS PROJECT MANAGEMENT 1

Presented to:
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1 – Project Planning

1.1 – Information Gathering

Name of Industry – Kostal Dive Travel and Tours

Business Operations

Kostal Dive Travel and Tours is a boat renting and island-hopping business where water sports enthusiasts and partygoers may rent the equipment and services offered by the business so they may enjoy and wind-off on their oceanic travels. The services and paraphernalia offered by the business mainly extend to Scuba Diving and Island-Hopping.

Transactions Involved:

1. Booking of guests and encoding of corresponding information.
2. Creation of proper documents.
3. Approval of documents to the Philippine Coast Guard
4. Providing services to the booked guests.
5. Payment transactions.

How they manage their business operations/project?

The business and its processes are mainly directed by the business owner Mr. Gonzales, who is responsible of delegating tasks to the proper personnel to run the business in its day-to-day operations. Other than that, the personnel involved in running the business would be the coordinators who manage and procure the proper documents to be approved by the Philippine Coast Guard to allow the boat and its guests to sail in protected oceanic areas, along with the boat crew who manage and operate the vessel whenever it is in service.

How they execute their project plan?

Business Process:

A regular island-hopping trip will have the following processes.

- The customer contacts the business owner or coordinator to book a trip.
- The customer provides a list of the details and information of the following guests.

- The coordinator will then create the proper documents (Vessel Entry Permit and Island-Hopping Voucher) with the corresponding guest details.
- The coordinator will then have the documents approved by the Coast Guard and acquire the official receipt/permit.
- The boat will then sail and provide the paid services to the guests.
- The guests will make payments to the business owner for the services they got.

Current Issues/concerns needs to be address:

1. Creation of the proper documents (Vessel Entry Permit and Island-Hopping Voucher) is slow and done manually (handwritten or encoded) on an official word document.
2. No system that easily keeps or recalls information of frequent customers.
3. Recordkeeping of previous boat trips is easily lost due to it being kept in such a way that it piles up into stacks of paper.

Problem Statement:

The nature of how the documents required for permitting boat travel are created introduces inefficiencies and hinderances to the business processes. The creation of the Vessel Entry Permit and the Island-Hopping Voucher which must contain accurate guest information warrants a process of tedious manual cross referencing that increases the chances of critical errors, especially when done by hand. The process of manually writing or encoding guest details without any system that records old guest information results in the coordinators asking for guest information even from customers who frequently purchase the boat's service. The recordkeeping of the approved documentation is faulty as documents produced are haphazardly kept in stacks of paper which may result in the loss of important information. All these problems present a hinderance to the business day-to-day processes and may negatively affect its scalability in the long run.

1.2 - Problem Identification and Goal Setting

Goals:

1. Improve efficiency and accuracy of document (Vessel Entry Permit and Island-Hopping Voucher) creation.
2. Find a way that guest information can be stored and referenced easily.
3. Improve recordkeeping of approved documents.

Objectives:

1. Maximize efficiency of process of document creation by introducing system that allows digital encoding of documents that streamlines repetitive information and decreases cause for inaccuracy, after which it can print a softcopy.
2. Integrate guest information history into the system that allows autocompletion and suggestion function while encoding guest information.
3. Allow the system to save, edit, and delete documents to simulate recordkeeping.

Scope and Purpose of the Project:

The scope of the project extends only to the business processes and transactions of Kostal Dive Travel and Tours, and how these processes can be improved upon and maximized. Other businesses or institutes that work in tandem or are affiliated with Kostal Dive Travel and Tours do not reach the scope of this project.

The purpose of the project is to create an application that allows the business to elevate and align closer to their goals. Attaining the goals mentioned above will allow the business and its stockholders to enjoy business efficiency and more time to improve upon business scalability, besides that the benefits that the application will bring include document accuracy and customer satisfaction.

2 – Project Framework

The current state of the system

1. Slow manual document creation.
2. Lack of guest information tracking.
3. No form of recordkeeping.
4. Prone to errors while inputting guest information.

Purpose:

1. Increase in efficiency of document creation.
2. Accuracy and tracking of guest information encoding.
3. Enable recordkeeping of approved documents.

Objectives:

The project should be able:

1. To maximize efficiency of document creation.
2. To allow the user to track previous guest information and to bolster accuracy.
3. To establish a recordkeeping system.

Project Framework

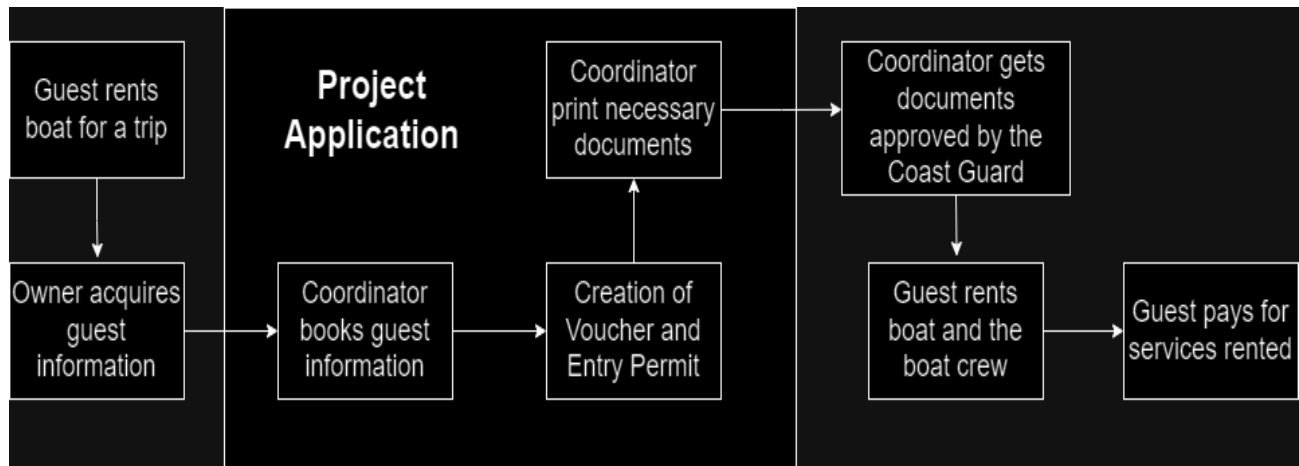


Figure 1. Project Framework

1. Guest – The person who will be renting the boat and the services offered by the company and who will be paying for said services.
2. Owner – The owner of the business and the person who usually gets contacted by guests and customers to book a boat trip.
3. Coordinator – The person in charge of creating the documents such as the Vessel Entry Permit and the Island-Hopping Voucher that are necessary to be approved by the proper authorities for the boat to be allowed to sail protected waters.
4. Coast Guard – The Philippine Coast Guard is a military and security organization in charge of protecting the waters surrounding the Philippines from looters, pirates, and other criminal entities. They require boat renting and island-hopping businesses to procure the proper documents and fees for the boat to be allowed to go on a trip.
5. Boat Crew – The people in charge of maintaining the boat and facilitating the boat trips.

3 – Methodology

Methodology

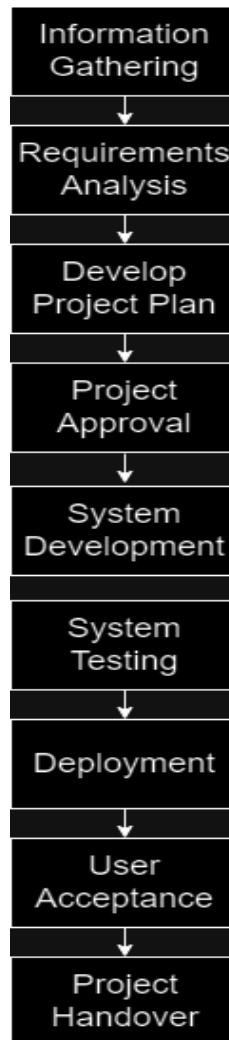


Figure 1.2 Project Methodology

Project Methodology Breakdown:

1. Information Gathering – in this process, the proponents will be conducting business-searching as to find a business who will agree to be a part of this project, most preferably business who are observed to have inefficiencies in their processes that may be remedied through an integration of a system.
2. Requirements Analysis – once a consenting business has been secured, the proponents will then be conducting a requirements analysis in the form of interviews with key stakeholders, observation of business processes, and hands-on interaction with the business itself. This is to gain insights as

to what inefficiencies the business is experiencing and how this inefficiency can be addressed through technological means.

3. Develop Project Plan – based on the insights gained from the requirements analysis, the proponents will then begin developing a project plan that will contain comprehensive planning, methodologies, and details necessary to properly execute the project. The project plan will encompass all the necessary knowledge required to inform the stakeholders of the project's scope, timeline, budget allocation, workload, and necessary expertise for proper execution.

4. Project Approval – once the project plan has been completed, the proponents will then be proposing the paper to the professor of the course who will give the approval for the proponents to continue working on the project.

5. System Development - once the project has received approval to continue in development, the proponents will begin developing the system. Developing the system will include developing the program layout, integrating the booking system, the guest information database, and the printing function.

6. System Testing – when the development of the application is finished, the proponents will then be working in tandem with the system testers to observe and check if the functions of the application are working as expected.

7. Deployment – if the application and its function are working as intended, then the application will be deployed and integrated into the business' day-to-day processes. The application will be under project management for the entire duration and its performance will be recorded for further improvement.

8. User Acceptance – before the final project approval, the system needs to be fully approved and accepted by the business stakeholders. If the stakeholders are satisfied with the functionality of the program, then the project can be considered a success.

9. Project Handover – once the project has been completed and passed its final defense, the project will be handed over to the business.

Strategies of the Project

1. Development Methodology

The project will have the waterfall model as its methodology. The waterfall model allows the proponents to have a linear and concise guideline as to how approach each and every step of the project.

2. Testing Methods

- Functional Testing – Functional Testing is deployed to verify that the application and all of its proposed functionalities are working as intended.
- User Testing – User Testing, otherwise known as User Acceptance Testing, will be deployed to verify the ease of use of the application and the efficiency of its faculties when it comes to being used by normal users who did not develop it.

3. Strategies in Development

1. In-house: Business employees, Programmer, Project Manager
2. Software: Software application utilizing Python and MySQL

Implementation

1. System Deployment – Will be deployed and utilized in the workplace of Kostal Dive Travel and Tours
2. Activities:
 - 2.1 Introduction of booking application
 - 2.2 User training
 - 2.3 Simulation of business process w/ application
 - 2.4 Post deployment reporting

Management of the Project

- a. Management: Employees of Kostal Dive Travel and Tours
- b. Readiness and Capability of Recipients:
 1. Employee training and simulation
 2. Acceptance from the business owner

Strategies in Acceptance of the Project

1. System validation and user acceptance training by business employees and owner
2. Regular weekly reporting after 1 month of deployment

4 - Work Breakdown Structure

Level 1	Level 2	Level 3
1. Voucher Creation Application for Island-Hopping	1.1 INITIATION PHASE	1.1.1 Information Gathering 1.1.2 Requirements Analysis 1.1.3 Develop Project Plan
	1.2 DEFINITION PHASE	1.2.1 Create Project Model System 1.2.2 Create Project Methodology 1.2.3 Create Work Breakdown Structure 1.2.4 Define Project Team 1.2.5 Determine Project Costs 1.2.6 Develop Project Development Monitoring 1.2.7 Project Approval
	1.3 EXECUTION PHASE	1.3.1 Verify & Validate User Requirements 1.3.2 Design Program Layout 1.3.3 Integrate Booking Function 1.3.4 Integrate Guest Information Database 1.3.5 Integrate Save and Print Function 1.3.6 Testing Phase 1.3.7 System Revision 1.3.8 Install Live System 1.3.9 User Training 1.3.10 Go Live
	1.4 CONTROL PHASE	1.4.1 Project Management 1.4.2 Project Status Reporting 1.4.3 Issue Resolution 1.4.4 Update Project Management Plan
	1.5 CLOSE OUT PHASE	1.5.1 User Acceptance 1.5.2 Documentation 1.5.3 Project Handover 1.5.4 Project Closure

Table 1. Work Breakdown Structure

The table above is the work breakdown structure of the entire project. The proponents and the developers' workload and timeline is separated into five different phases.

V – Project Team

External Interfaces

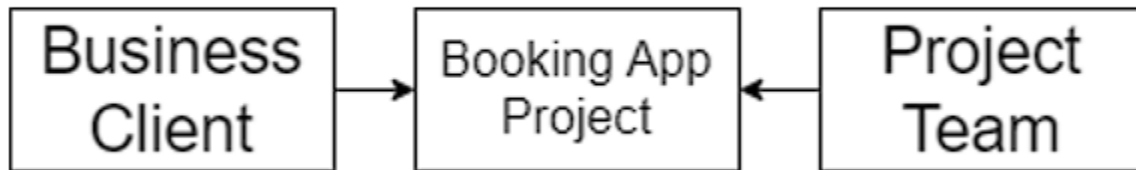


Figure 1.3 External Interfaces

The figure above is the external interfaces of the project team. The project team will be developing the booking application, while the business client will be the one using it after.

Internal Interfaces

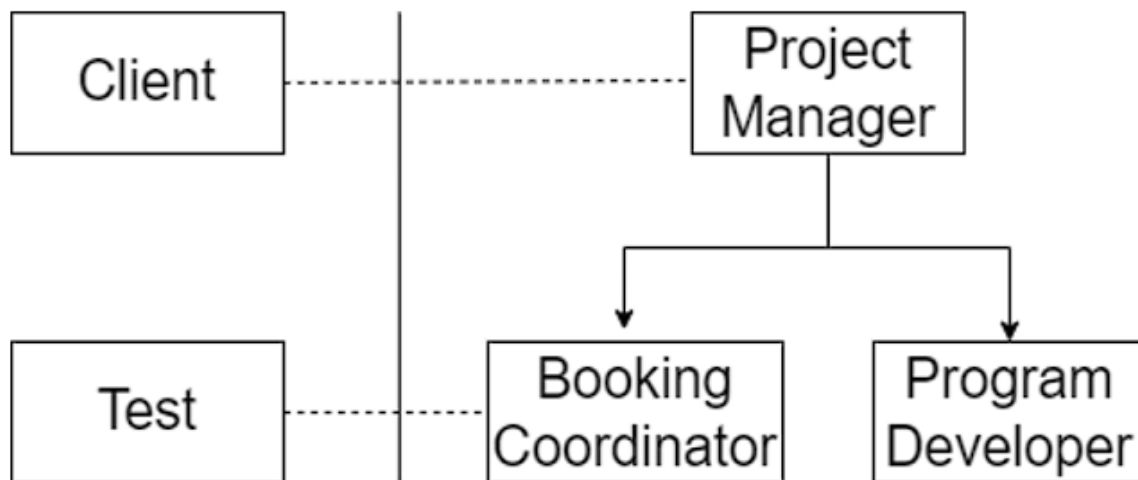


Figure 1.4 Internal Interfaces

The figure above is the internal interfaces of the project team. The project manager will be handling and leading the activities of Booking Coordinator and the Program Developer. The Booking Coordinator will be the one responsible of testing the program, and the program manager will be the one responsible of interacting and cooperating with client.

VI – Project Costs

Roles

Roles	Description	Cost
PM	Project Manager	6350
BC	Booking Coordinator	900
PD	Program Developer	3750
T	Tester	150
U	User	300

Table 1.2 Roles

The table above is the estimated cost or payment for required team members to work on this project. The Project Manager is the one who will be responsible for managing the project, distributing work, allocating the budget, and creating the necessary documentation. The Booking Coordinator is personnel from the business and is responsible for helping the Project Manager in instances where inside knowledge of the business is required. The Program Developer is the person in charge of creating the program along with its intended functionalities. The Tester is the person who will be participating in the system testing phase. And lastly, the User is the person who will be conducting the User-Acceptance Testing.

WBS	Task Name (Activities)	Duration(man-days)	PM	BC	PD	T	U
1	Voucher Creation Program for Island-Hopping						
1.1	Initiation Phase	4	650	150			
1.1.1	Information Gathering	1	300				
1.1.2	Requirements Analysis	1	150	150			
1.1.3	Develop Project Plan	2	200				
1.2	Definition Phase	43	1900				
1.2.1	Create Project Model System	2	200				
1.2.2	Create Project Methodology	2	200				
1.2.3	Create Work Breakdown Structure	2	200				
1.2.4	Define Project Team	2	200				
1.2.5	Determine Project Costs	14	400				
1.2.6	Develop Project Development Monitoring	6	400				
1.2.7	Project Approval	15	300				
1.3	Execution Phase	43	1100	350	3350	150	150
1.3.1	Verify & Validate User Requirements	2	150	150			
1.3.2	Design Program Layout	5			500		
1.3.3	Integrate Booking Function	6			750		
1.3.4	Integrate Guest Information Database	6			750		
1.3.5	Integrate Save and Print Function	6			750		
1.3.6	Testing Phase	4	300			150	
1.3.7	System Revision	4			400		
1.3.8	Install Live System	2	200		200		
1.3.9	User Training	6	300	200			150
1.3.10	Go Live	2	150				
1.4	Control Phase	19	1750	400	400		
1.4.1	Project Management	10	750	200			
1.4.2	Project Status Reporting	3	400				
1.4.3	Issue Resolution	3	200		400		
1.4.4	Update Project Management Plan	3	400	200			
1.5	Close Out Phase	9	950				150
1.5.1	User Acceptance	2	250				150
1.5.2	Documentation	5	300				
1.5.3	Project Handover	1	200				
1.5.4	Project Closure	1	200				
TOTAL		118	6350	900	3750	150	300

Figure 1.3 Work Breakdown Structure with Costs

The table above is the work breakdown structure along with the associated costs of each step. The figure visualizes the people involved in each step, their particular pay for that step, and the overall costs of each phase and the entire project.

7 – Project Monitoring

Project Tracking

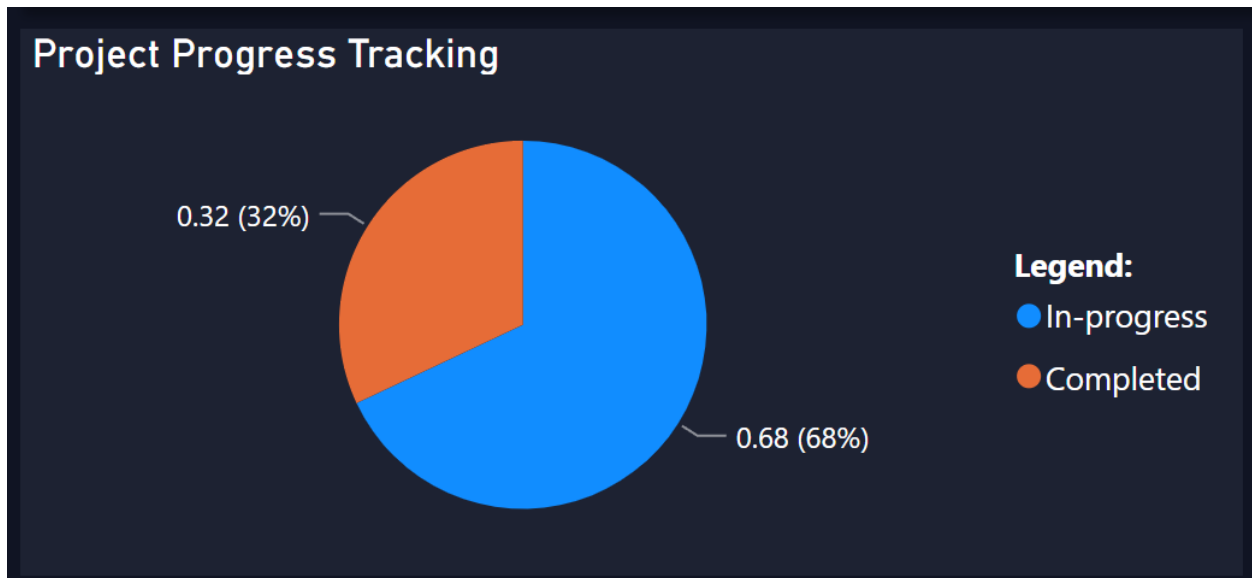


Figure 1.5 Project Progress Tracking

The graph above visualizes the current progress of the project. The orange chart represents the completed percentage of the project while the blue chart represents the incomplete percentage of the project.

Project Tracking Plan – Budget

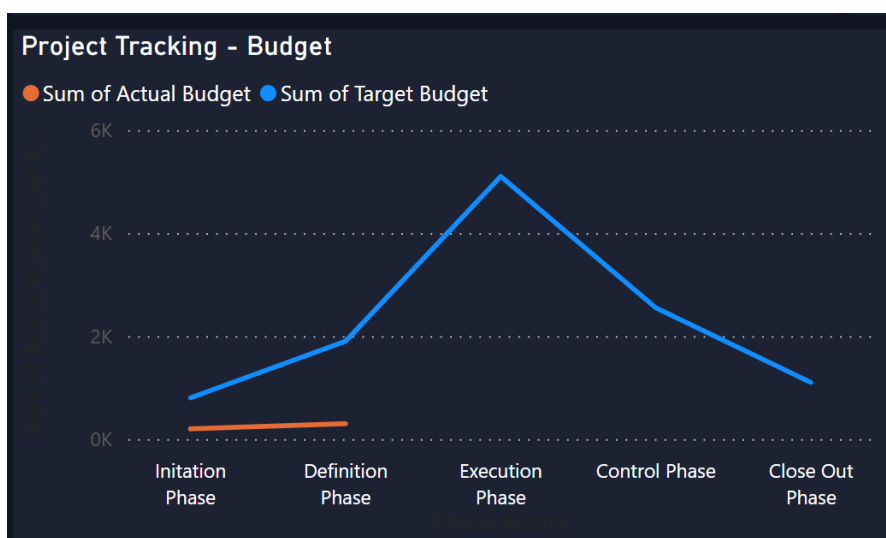


Figure 1.6 Project Tracking – Budget

The graph above visualizes the sum of the target budget as planned out in Activity 6 which is coded in blue color, while also showing the actual budget spend which is coded in orange color.

Project Tracking Plan – Schedule

	ABC 123 Project Milestone	ABC 123 Target Date	ABC 123 Actual Date
1	Information Gathering	1/22/2024	1/22/2024
2	Requirements Analysis	1/23/2024	1/22/2024
3	Develop Project Plan	1/25/2024	1/25/2024
4	Create Project Model System	2/2/2024	2/2/2024
5	Create Project Methodology	2/2/2024	2/2/2024
6	Create Work Breakdown Structure	2/2/2024	2/4/2024
7	Define Project Team	2/2/2024	2/6/2024
8	Determine Project Costs	2/16/2024	2/16/2024
9	Develop Project Development Monitoring	2/22/2024	2/28/2024
10	Project Approval	3/8/2024	null
11	Verify & Validate User Requirements	3/10/2024	null
12	Design Program Layout	3/15/2024	null
13	Integrate Booking Function	3/21/2024	null
14	Integrate Guest Information Database	3/27/2024	null
15	Integrate Save and Print Function	4/2/2024	null
16	Testing Phase	4/6/2024	null
17	System Revision	4/10/2024	null
18	Install Live System	4/12/2024	null
19	User Training	4/16/2024	null
20	Go Live	4/18/2024	null
21	Project Management	4/28/2024	null
22	Project Status Reporting	5/1/2024	null
23	Issue Resolution	5/4/2024	null
24	Update Project Management Plan	5/7/2024	null
25	User Acceptance	5/9/2024	null
26	Documentation	5/14/2024	null
27	Project Handover	5/15/2024	null
28	Project Closure	5/16/2024	null

Table 1.4 Project Tracking Plan – Schedule

The table above is the Project Tracking Plan for the schedule of the project. It shows the target date of when each milestone will be completed as planned out in the Work Breakdown Structure, but also shows the actual date of when each milestone was finished.

Project Tracking Plan – Quality

	^B _C Metric	^B _C Measures	1.2 Target
1	Bug Ratio	Number of bugs logged / Total number of Test Case Scen	0.1
2	Issue Ratio	Number of Open issue / Total number of Logged issues	0.05
3	Pass Modules Ratio	Number of bugs logged / Total number of Test Case	1

Table 1.5 Project Tracking Plan – Quality

The table above calculates the ratio of bugs, issues, and number of passed modules to ensure the quality of the project by having target ratio scores for each measure.

Project Tracking Plan – Bugs

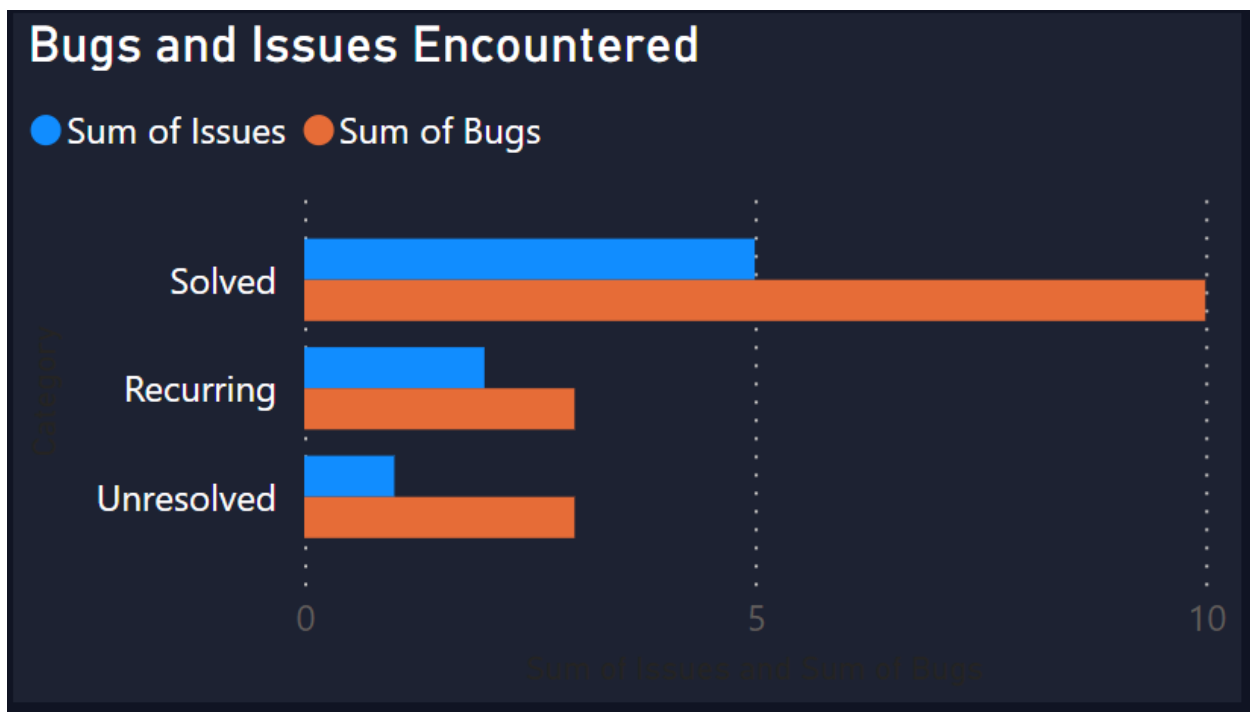


Figure 1.7 Project Tracking Plan - Bugs

The figure above visualizes the number of solved, recurring, and unresolved bugs and issues that were recorded during the process of the system development. The blue chart signifies the issues, and the orange chart signifies the bugs.

Dashboard

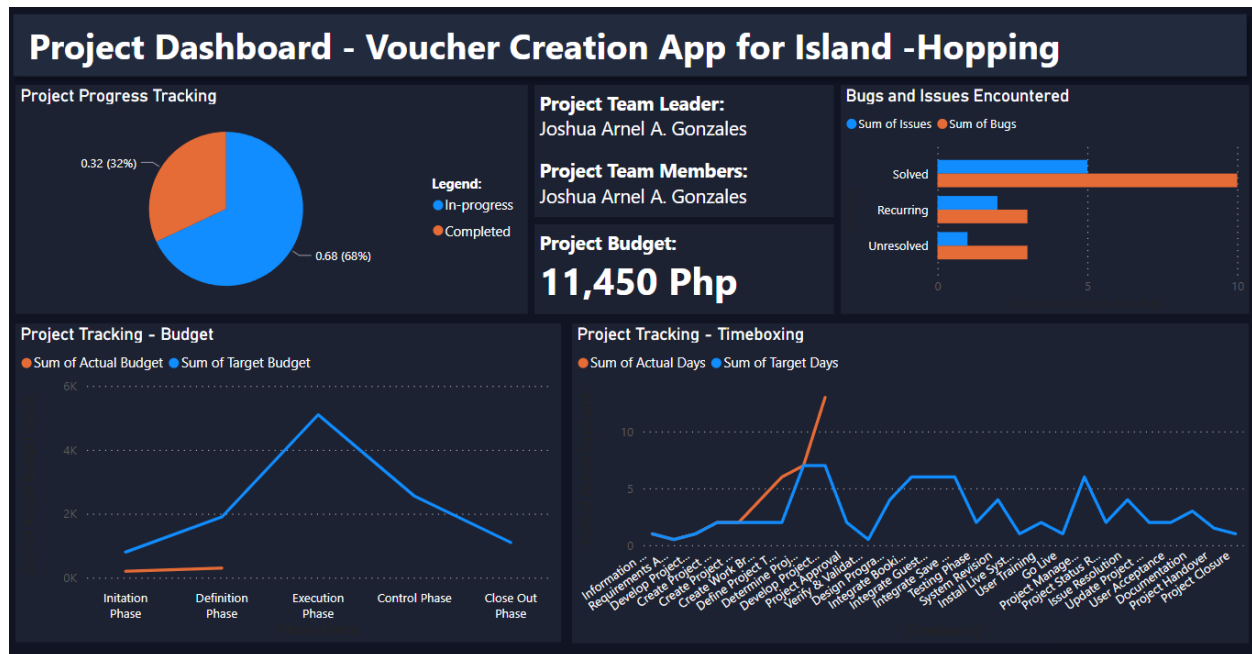


Figure 1.8 Dashboard

The figure above is the dashboard where all the previous graphs and charts are compiled. This serves as a visual compilation of the current status and progress of the project.