PROJECT MANAGEMENT PLAN
SurveiRams

ASIA PACIFIC COLLEGE
3 HUMABON PLACE, MAGALLANES
MAKATI CITY, 1232 METRO MANILA

APRIL 2023

1. Company Profile

Registered Name:	KAYVI byte
Company Logo:	**KAYVI byte.**
Address:	TripleTech Bldg., 190 Doña Soledad Ave, Parañaque, 1709 Metro Manila
Contact Number:	+639260030250
Fax Number:	None
Line of Business:	Software Development
Type of Customers:	Business customers
Date of Registration:	2021 (KAYVI Byte) 2026 (KAYVI Byte)
President:	Ian Christopher Onrubia
Number of Employees:	Five employees (as of June 4, 2023, in Philippines)

Table 1. KAYVI byte Company Profile

Introduction:

Innovative software development firm KAYVI Byte focuses on offering innovative solutions for companies of all sizes. KAYVI byte provides our customers with high-quality, reliable, and effective software products that enable them to improve their operations, streamline procedures, and accomplish their business goals. With a team of highly skilled professionals and a customer-centric approach, KAYVI Byte is dedicated to transforming ideas into reality and driving digital success for our clients.

The vision, mission, and values of KAYVI byte:

Vision:

Our mission at KAYVI Byte is to revolutionize the digital environment by creating software solutions, providing organizations with technology that foster growth, efficiency, and outstanding user experiences, KAYVI Byte aims to establish ourselves as a reliable partner.

Mission:

Our mission at KAYVI Byte is to leverage our expertise in software development to create custom solutions that cater to the unique needs of our clients. KAYVI Byte strives to build

long-term relationships by delivering exceptional products that exceed expectations, maximize efficiency, and drive growth for businesses across industries.

Values:

- Adaptable: KAYVI byte is adaptable to change, technology is evolving fast, and the company is also adapting to the trends of the technological world.
- Growth: KAYVI byte has a passion for growth, KAYVI byte is striving that everyone of us is growing even in the workplace.
- Excellency: KAYVI byte strives for excellency which surpass expectations.
- Innovation: KAYVI byte fosters a culture of innovation constantly exploring recent technologies.
- Continuous Learning: KAYVI byte is committed to continues learning even in the professional setting.

2. Business Case

2.1. Problem Definition

2.1.1. Problem Statement

The process of handwritten reports can be tedious and time-consuming, leading to inefficiency and errors in the documentation process. This can result in a lack of clarity and accessibility to vital information for stakeholders such as managers and other employees who require accurate data in a timely manner. The current system also has unnecessary steps that could be eliminated when digitized such as rewriting the information from the logbook onto an incident report to be submitted to the Information Technology Resource Office (ITRO) or Building Maintenance Office (BMO).

2.1.2. Organizational Impact

SurveiRams facilitate the digitization of work processes by reducing the use of paper among employees. Security personnel quickly report incidents they encounter, which allows for a faster response time and enhances overall safety measures within the organization. BMO and ITRO faculty members will also receive the incident reports as soon as a guard logs it, instead of waiting for the rewritten version.

2.1.3. Technology Migration

To address the issues brought on by the manual administration of security personnel, BMO, and ITRO, the team will develop a mobile application called SurveiRams that automates the manual documentation procedure. The migration from manual

administration to SurveiRams will improve the overall efficiency and accuracy of the security personnel reporting process. As the data will be securely stored and easily accessible to the cloud, it will enable faster decision-making and reduce the risk of errors or discrepancies in reporting.

2.2. Project Overview

2.2.1. Project Description

This project will be concerned with the creation of a mobile application for the security personnel and several offices of APC, wherein they can log and view incident reports. This is to digitize the security personnel's recording process, as well as boost their productivity. There will be different accessible features available depending on the user, which is based on what office or department they are from.

2.2.2. Goals and Objectives

The main goal of this project is to create SurveiRams, a ticketing mobile application for APC's security personnel, ITRO, and BMO.

Specifically, said application should:
- Serve as a centralized location that the guards will log their patrols on
- Digitize the manual documentation processes of Security, ITRO, and BMO
- Assist users in making decisions by providing insights based on data collected

2.2.3. Project Performance

The mobile application SurveiRams must have the following features for the project to be successful:
1. A repository where the user can create, read, and update incident reports and logs.
2. A dashboard where an administrator can view insights drawn from the stored data from the reports. The following information should be seen on the dashboard:
    a. How many resolved and unresolved incident reports there are
    b. The department and floor that ranks highest regarding the number of incidents that occurred
    c. What kind of incident occurred the most
    d. How many incidents occurred per floor
    e. How many incidents are reported per office

2.2.4. Project Assumptions

Below are the initial expectations about the proposed system:
1. Resources requested in the Cost Management Plan will be provided.
2. The project team have the skills required to complete the project
3. Stakeholders will provide necessary information to the project team regarding their current system and business needs.
4. Relevant stakeholders will cooperate with the team during training and implementation.

The project team is using Hybrid Methodology (Agile mixed with Waterfall).

2.2.5. Project Constraints

The initial limitations for the proposed project are listed as follows:
1. Only two (2) developers are focused on developing mobile applications.
2. This project aims to solve business needs only for the BMO, ITRO, and Security Personnel
3. The features of the mobile application are for aiding the processes regarding logs, patrolling, and incident reports.

2.2.6. Major Project Milestones

To facilitate the team's advancement towards project completion, the subsequent milestones and deliverables have been recognized for this project.

Project Milestones	Start Dates
Initiation	04/11/2023 – 05/12/2023
Develop a Project Plan	05/15/2023 – 09/12/2023
Analysis	09/13/2023 – 10/10/2023
Design	10/11/2023 – 04/01/2024
Testing	04/02/2024 – 04/25/2024
Implementation	04/18/2024 – 06/26/2024
Close Project	07/27/2024 – 08/12/2024

Table 2. Major Project Milestones

2.3. Strategic Alignment

SurveiRams has the same goal as BMO, and ITRO in enhancing and refining the manual verification system into a mobile application that serves as a patrolling assistant focusing on its reporting system aspect to develop a more digitalized, efficient, and sustainable method

of keeping up with the security personnel's daily operations. That also improves employees' productivity by creating a more effective and efficient environment. Overall, this strategic alliance is expected to result in a sustainable and innovative solution to revolutionize security personnel's operations while improving business productivity simultaneously.

2.4. Cost and Benefit Analysis

The process of cost-benefit analysis will assist in evaluating the relative advantages of the SurveiRams System project compared to the expenses it entails.

Benefits:
The SurveiRams project can provide several benefits, including:

- Improved efficiency and productivity: The implementation of a digitalized system can optimize reviewing system reports by reducing paper documents, which can result in more efficient and effective work by allowing employees to focus more on higher value tasks.
- Enhanced accuracy: The automated system can help reduce human error, providing a more accurate method of determining whether the security personnel have completed their assigned tasks.
- Better decision-making: The application can provide analytical insights that can help the stakeholders interpret data reports and patterns, making decision-making more informed and strategic.
- Increased security: The SurveiRams can help ensure building security by identifying anomalies or incident reports, aiding in monitoring and preventing future security breaches.
- More sustainable and cost-effective: By digitizing the current system, the project can eliminate the need for excessive paperwork, making the entire process more sustainable and cheaper eventually.

Costs:
- Cost Savings: SurveiRams reduces the use of paper. This also results in cost savings and increased productivity. Paperless documentation increases the efficiency of data transmission by reducing paperwork and physical contact like couriers and printers.

For more details regarding the project costs, see Cost Management Plan.

3. Project Charter

3.1. Project Purpose/Justification

3.1.1. Business Need

The SurveiRams project has been created to improve the incident reporting process. The APC employees involved will be more productive, make fewer errors, as well as spend less time on one report using the mobile application.

3.1.2. Business Objectives

The general business objective is to develop SurveiRams, a ticketing system for APC's security personnel, ITRO, and BMO to record incident reports and logs. It will provide insights into the security personnel's routes to ensure they have completed their assigned tasks.

Specifically, the SurveiRams mobile application should act as the centralized location of the guards' patrol logs, automate the log documentations, and provide analytics to help stakeholders in their decision-making. Development is expected to be finished by June 2024 with a budget of PHP 1,498,450.80.

3.2. Project Description

This section discusses a high-level description of the SurveiRams Ticketing System project.

This project will be concerned with the creation of a mobile application for the security personnel and several offices of APC, wherein they can log and view incident reports. This is to digitize the security personnel's recording process, as well as boost them productivity. There will be different accessible features available depending on the user, which is based on what office or department they are from.

3.2.1. Project Objectives

The objectives which mutually support the milestones and deliverables for this project have been identified. To achieve success on the SurveiRams project, the following objectives must be met within the designated time and budget allocations:

- Develop proposal about features to present to the client, project sponsor, and stakeholders within 23 days (about 3 weeks).
- Complete list of required hardware/software which meets budget allocation within 10 days (about 1 and a half weeks).
- Create the SurveiRams ticketing system within 115 days (about 16 and a half weeks).
- Complete the testing phase within 18 days (about 2 and a half weeks).
- Complete the required documentation for this project.
- Implement the solution across the APC organization within 48 days (about 7 weeks).

3.2.2. Requirements

This project must meet the following list of requirements to achieve success.

- The application must be tested and approved by the client, project sponsor, and other relevant stakeholders prior to deployment.
- All documentation must be approved by the Project Manager and Project Sponsor before confirming project completion.

Additional requirements may be added as necessary, with project sponsor approval, as the project moves forward.

3.2.3. Constraints

The following constraints pertain to the SurveiRams project:

- All mobile devices to be used by the security personnel are exclusive of the allocated budget.
- The entire project timeline will last for 283 days (about 40 weeks).

Two software developers, one documentation specialist, one software tester and a project manager will be provided as resources for this project.

3.2.4. Assumptions

The following is a list of assumptions. Upon agreement and signature of this document, all parties acknowledge that these assumptions are true and correct:

- This project has the full support of the client, project sponsor, stakeholders, and project adviser.

- This project's purpose will be communicated throughout the company before deployment.
- The project adviser and project sponsor will provide additional resources if necessary.

3.2.5. Preliminary Scope Statement

The SurveiRams project aims to create a more robust ticketing system for the entire organization. The project team will handle all aspects of the project, including administering personnel, hardware, and software resources, and all necessary testing will be conducted independently of daily operations. The Project Manager is responsible for securing project funding as outlined in this document. Additional funding must be approved by the project sponsor. The project will be considered complete once the SurveiRams system is tested and deployed throughout the organization, the final report is submitted within 33 days (about 5 weeks), and technical documentation is distributed to appropriate personnel.

3.3. Risks

The following risks for the SurveiRams project have been identified. The project manager will determine and employ the necessary risk mitigation/avoidance strategies as appropriate to minimize the likelihood of the following risks:
- Data Loss
- System Bugs
- Power Failure
- Unstable Internet Connection
- The project goes over budget

3.4. Project Key Deliverables

The following deliverables must be met upon the successful completion of the SurveiRams project. Any changes to these deliverables must be approved by the project sponsor.
- Complete implementation of SurveiRams Ticketing System
- SurveiRams project's technical documentation
    - Project Charter (Long)
    - Stakeholder Management Strategy
    - Scope Management Plan
    - Cost Management Plan
    - Schedule Management Plan
    - Work Breakdown Structure (WBS)
    - Communications Management Plan

- o   Quality Management Plan
- o   Risk Management Plan
- o   Change Management Plan
- o   Procurement Management Plan
- o   Human Resource Plan
- o   Implementation Plan
- Recommendation list for future security considerations and enhancements

3.5. Summary Milestone Schedule

The project Summary Milestone Schedule is presented below. As requirements are more clearly defined this schedule may be modified. Any changes will be communicated through project status meetings by the project manager.

Project Milestones	Start Dates
Initiation	04/11/2023 – 05/12/2023
Develop a Project Plan	05/15/2023 – 09/12/2023
Analysis	09/13/2023 – 10/10/2023
Design	10/11/2023 – 04/01/2024
Testing	04/02/2024 – 04/25/2024
Implementation	04/18/2024 – 06/26/2024
Close Project	07/27/2024 – 08/12/2024

Table 3. Summary Milestone Schedule

3.6. Budget Summary

The following table contains a summary budget based on the planned cost components and estimated costs required for successful completion of the project.

SurveiRams Ticketing System	
Project Cost Elements	**Cost**
Manpower Cost: Estimate *based on glassdoor	PHP 818,860.00
Hardware	PHP 217, 108.00
Software	PHP 11,260.00
Recurring Payment	PHP 310,000.00
Onetime Payment	PHP 5,000.00
Contingency Cost	PHP 136,222.80
Grand Total	**PHP 1,498,450.80**

Table 4. SurveiRams Budget Summary

3.7. Project Approval Requirements

The ultimate objective of the SurveiRams project is to deploy a fully tested and well-documented ticketing system within the time and budget limitations specified in this charter. The project's success criteria will include a list of recommended future enhancements, as the solution is expected to evolve to accommodate future changes. The project sponsors, Mr. Jojo F. Castillo and Mr. Jose Manuel Garcia, who will authorize its completion, will determine whether the project has met the success criteria.

4. Project Manager

Ian Onrubia has been designated as the Project Manager for the SurveiRams project. As the Project Manager, Mr. Onrubia will be responsible for overseeing the project's scope management, which includes collaborating with Mr. Jojo Castillo and Mr. Jose Manuel Garcia, the project sponsor, and other key stakeholders to define and effectively manage the project scope.

The Project Manager will oversee the fulfillment of all project requirements, ensuring that the project deliverables are accepted and approved by the project sponsor and relevant stakeholders. Furthermore, he will have the authority to make decisions related to personnel, project expenditures, and scheduling, as determined by the organization and scope of the project. Throughout the project lifecycle, he will be responsible for ensuring that the project is completed successfully, and all deliverables are accepted, and any outstanding issues are resolved.

5. Project Management Plans

5.1. Stakeholders Strategy Management Plan

5.1.1. Introduction

This document stands as the guidelines on how the team will approach the stakeholders and their needs. Addressing their concerns and requirements is important, as they are the people affected by the outcome of this project. The list of the stakeholders and their information relative to the deliverables can be found here. In doing so, the team can manage them well and be one step closer to the success of SurveiRams.

5.1.2. Identify Stakeholders

The Stakeholder Management Strategy aims to identify and engage all individuals or groups with a personal interest in the project and who will be impacted by its implementation or success. To achieve this, the project team will use a structured methodology that involves interviews, document review, and consultation meetings. The methodology includes identifying all potential stakeholders through a stakeholder analysis, prioritizing stakeholders based on their influence and impact on the project, which all aid in developing a stakeholder

management plan. Ongoing communication with stakeholders is also essential to ensure that their needs and concerns are addressed and that the project stays on track.

5.1.3. Key Stakeholders

The security personnel, Building Maintenance Office (BMO), and Information Technology Resource Office (ITRO) are key stakeholders in ensuring the safety and proper functioning of the building and its technology systems. Allowing employees to use SurveiRams as an automated ticketing system, employees can streamline communication and task assignment between these stakeholders to ensure efficient resolution of any security, maintenance, or technology-related issues within the building. Additionally, this enables the stakeholders to maintain and keep incident reports, streamline cross-functional processes, and increase the organization's dependability, all of which contribute to the organization's overall efficiency.

5.1.4. Stakeholder Analysis

Stakeholder	Role	Impact	Influence	What is important to the stakeholder?	How could the stakeholder contribute to the project?	Strategy on engaging the stakeholder
Jojo Castillo	ITRO Head	High	High	Directly receive reports	Project Approval and use of the application	Set a meeting
Jose Manuel Garcia	Campus Architect	High	High	Directly Receive reports, upload their physical files to the system	Project Approval and use of the application	Set a meeting
Marr Bringas	BMO Head	High	High	Directly send reports	Use of the Application	Interview
Mervin Quilang	Head Guard	High	High	Directly send reports	Use of the application	Interview
Ian Christopher Onrubia	Project Manager	High	High	Project Team and System	Manage the project team	Set a meeting

Alexis Martin	Front-end Developer	Medium	High	Front-end System	Develop Front-end System	Set a meeting
Jan Karlo Boongaling	Documentation Specialist	High	High	Deliverables	Document the entire process of the system	Set a meeting
Yuan Serafico	Software Tester	Low	High	Completed System	Test the software	Set a meeting
Vladimir Perez	Back-end Developer	Medium	High	Back-end System	Develop Back-end of the system	Set a meeting

Table 5. Stakeholder Analysis

5.2. Scope Management Plan

5.2.1. Introduction

The scope management plan is a crucial component of the overall project management approach for the SurveiRams project. It outlines the tools and techniques that will be used to effectively document and control the project's scope, ensuring it remains within the defined boundaries and aligns with the project objectives.

The project team will work collaboratively with stakeholders to prioritize and manage scope, identify and manage changes, and ensure that the project remains on track to deliver a successful SurveiRams system that meets the needs of all stakeholders.

5.2.2. Scope Management Approach

The scope management plan is a crucial component of the overall project management approach for the SurveiRams project. It outlines the tools and techniques that will be used to effectively document and control the project's scope, ensuring it remains within the defined boundaries and aligns with the project objectives.

The project team will work collaboratively with stakeholders to prioritize and manage scope, identify and manage changes, and ensure that the project remains on track to deliver a successful SurveiRams system that meets the needs of all stakeholders.

5.2.3. Roles and Responsibilities

The following are the roles and responsibilities in managing the project's scope:

Project manager	The project manager oversees specifying and establishing the scope of the project and supervising and approving adjustments. Also oversees raising stakeholder demands and priorities and making sure the project adds value to the company.
Project team	The project team confirms the project's scope and, if necessary, submits change requests.
Stakeholders	The stakeholders oversee providing feedback on the needs and scope of the project and authorizing any necessary changes.

Table 6. Scope Roles and Responsibilities

5.2.4. Scope Definition

To define the project's scope, the project team conducted meetings to draft a list. The team then utilized adviser and consultant judgment to assess the feasibility of the project and identify potential risks. Product analysis was conducted to determine the features and functions required by the new system. Facilitated interviews were also conducted with stakeholders to gather their input and ensure their requirements were considered. The scope definition process was tied back to the Project Charter and preliminary Project Scope Statement were also referred to during the scope definition process.

The scope of SurveiRams ticketing system will be defined through the following activities:

1. **Project Charter:** The project charter will provide a clear definition of the project's objectives, deliverables, stakeholders, and constraints, serving as a foundational document for scope management.
2. **Scope statement:** The scope statement involves clearly defining the boundaries and extent of the project. The scope statement will outline the specific features, functionalities, and requirements of the ticketing system, as well as any exclusions or limitations that will provide a high-level overview of the project scope.
3. **Sprint Planning and Review Meetings:** Sprint planning and review meetings will be conducted to collaboratively define the scope of each sprint and review the completed work against the defined scope. This will ensure that the project team and stakeholders have a shared understanding of the scope at each stage of the project.

4. **Product Backlog:** The product backlog will be created in the development phase, then utilized to capture and prioritize all the features, functionalities, and requirements of the SurveiRams system. It will serve as a dynamic document that evolves throughout the project, reflecting changing priorities and stakeholder needs.
5. **User Stories:** User stories will be done in the next phase of the project to be used to further detail the requirements of the SurveiRams system in a user-centric manner. User stories will capture the "who," "what," and "why" of each requirement, supplying a clear understanding of the desired outcomes.

5.2.5. Project Scope Statement

Product Scope Description:

Based on the analysis and input gathered, the following deliverables were defined as part of the project scope:
- Ticketing database
- Performance evaluation
- Reporting and analytics
- User training and support

Product Acceptance Criteria:

The project will be accepted as complete if:
1. The user can create, read, and update reports and logs in the application.
2. An administrator can access an analytics dashboard with the following information:
   - How many resolved and unresolved incident reports there are
   - The department name and floor number that has the most incidents
   - What incident occurred the most
   - How many incidents happened per floor
   - How many incidents happened per department

Project Deliverables:

Upon the successful conclusion of the project, the subsequent deliverables will be provided:
1. A fully operational system.
2. User manuals and training materials.
3. Technical documentation.
4. Any other deliverables as outlined in the Project Scope Statement and agreed upon by the Project Sponsor.

Project Exclusions:
1. Data Collection: This project does not include data collection from other sources or systems other than what is inputted by the user.

2. Automated Entry: This project does not include automated entry for the reports. All reports must be done or reported manually using the application. The user will be responsible for the creation of reports.
3. Data Transfer: The project team will not be responsible for encoding past logs and reports into the SurveiRams database.
4. Machine Learning: This project will not involve the development or implementation of any machine learning algorithms. The focus will be to manage the reports from students and to lessen the use of paper by using a dedicated application for the reports.

Project Constraints:
1. The project team only consists of five (5) members.
2. The project team will only be operating on the budget that the Project Sponsors approve.
3. The project will be developed only from April 2023 to July 2024.
4. The project is not intended to be used for purposes other than processes regarding patrolling, post logs, and incident reports.

Project Assumptions:
1. This project is fully supported by the project sponsor, stakeholders, and all departments involved. This means the project's approvals or permissions will be obtained promptly.
2. The developers of SurveiRams have the necessary technical skills and experience to carry out the project. The development tools and testing environment are available and provided by Asia Pacific College.
3. The build for this system is only accessible within the APC network.
4. Asia Pacific College possesses the necessary conditions to facilitate system implementation, sustain maintenance efforts, and provide comprehensive support for project development.

5.2.6. Work Breakdown Structure
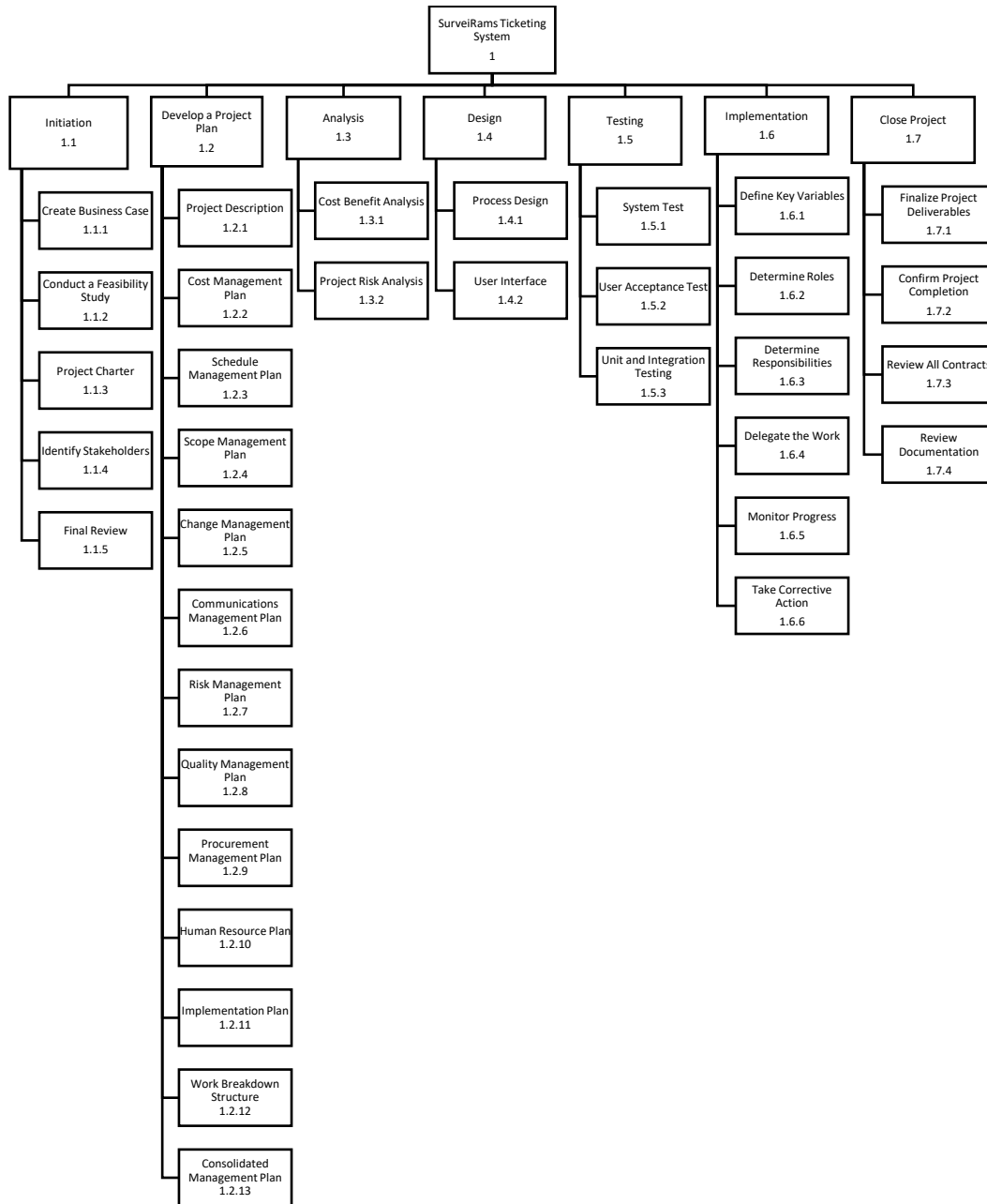
Figure 1. SurveiRams Work Breakdown Structure

Figure 1 illustrates the SurveiRams WBS in a hierarchical structure. A more detailed discussion for this can be found in the Work Breakdown Structure document.

5.2.7. Scope Verification

The project team will use various techniques for scope verification to guarantee that the SurveiRams System project deliverables satisfy the original scope. These methods include:

Quality Checklists
The project team will use checklists that outline the essential requirements for each deliverable to be accepted. These checklists will be employed to ensure that each deliverable satisfies all necessary criteria before progressing.

Work Performance Measurements
 The team will use work performance measurements to monitor and gauge the advancement of each deliverable during the development phase. This approach will enable the team to detect any issues or deviations from the original scope and take prompt corrective measures.

Scope Baseline
The team will establish a scope baseline, which captures a snapshot of the initial project scope. Any modifications to the scope must be recorded and authorized before being implemented. The scope baseline will be employed to ensure that the final deliverables align with the original project scope.

Formal Acceptance
 Each deliverable will be formally accepted by the project sponsor, customer, and other stakeholders upon completion. This ensures that the project team meets the expectations of all relevant parties and allows any necessary feedback or changes to be made promptly.

Overall, it is critical that the project team maintains open communication and cooperation with the client and other stakeholders throughout the project to ensure that the deliverables meet the original scope and are formally approved.

5.2.8. Scope Control

The change management plan must be consulted if the project scope is changed. The procedures written there will be followed. The change's impact on the schedule and budget will be factored into making the decision. Should any changes happen, all project documents related will be updated.

5.3. Cost Management Plan

The purpose of the Cost Management Plan for the SurveiRams System project is to ensure that all project-related expenses are managed efficiently throughout its entire duration. The plan outlines the techniques and guidelines that will be employed to gauge, communicate, and regulate project expenses.

Cost management responsibilities:
The Project Manager will be responsible for managing the project's expenses and act as the contact for any cost-related concerns. The Project Leader, on the other hand, will be responsible for supervising project spendings and making sure that it stays within the authorized budget.

Cost change approval:
Authorization from the Project Manager is required prior to implementing any changes in cost. In case the cost modification exceeds 10% of the total project budget, approval from the Project Sponsor must be obtained before executing it.

Cost measurement and reporting:
The project expenses will be evaluated and recorded monthly, using the cost performance index (CPI) and the schedule performance index (SPI). Monthly expense reports will be submitted to the Project Sponsor.

Budget format and standards:
The budget will be presented in a simplified and concise format by utilizing a spreadsheet program like Microsoft Excel. The budget will be divided into distinct line items, with each item having a detailed cost estimate. It will be updated once there are any changes, and any changes made will be indicated.

Overall, the objective of the Cost Management Plan for the SurveiRams System project is to ensure that all project-related expenses are effectively monitored and controlled, allowing the project to be completed within the assigned budget. This approach will ensure the project's successful and timely completion.

5.3.1. Cost Management Approach

The cost management approach for SurveiRams will be based on the following principles:
1. **Clear definition of cost** - The project team will define all the costs associated with SurveiRams such as hardware, software, development, and manpower costs as well as any other expenses related to the project.

2. **Budget development and tracking** - OpenProject will be implemented to regularly monitor actual spending against the allocated budget and identify areas for improvement.
3. **Cost variance analysis** - The project team will analyze and distinguish between the actual cost in the budget and predicted cost estimates to pinpoint reasons for any discrepancies, then initiate remedial measures to align expenses accordingly.
4. **Cost management roles and responsibilities** - The project team members will define and establish clear roles and responsibilities for cost management.
5. **Approval process for changes** - Changes to projects or budgets will be approved formally through an established and implemented procedure.
6. **Reporting and communication** - Regular cost reports will be provided and distributed to the project team, project sponsor, and stakeholders to inform them of the project's financial situation.

By implementing a clear cost management approach in SurveiRams, the project team can ensure that the project stays on budget and meets financial objectives. This can help to minimize the risk of cost overruns and ensure that the project is completed successfully.

5.3.2. Measuring Project Costs

For this project, the Earned Value Management tool will be used to measure project costs. Specifically, the Cost Variance (CV), Schedule Variance (SV), Cost Performance Index (CPI), and Schedule Performance Index (SPI) are the metrics to be used to aid in tracking whether the project is over or under budget, or whether the team is on schedule or not.

Metrics	Formula/Definition
Schedule Variance (SV)	$EV - PV$
Cost Variance (CV)	$EV - AC$
Schedule Performance Index (SPI)	$\dfrac{EV}{PV}$
Cost Performance Index (CPI)	$\dfrac{EV}{AC}$

Table 7. EVM Metrics and Formulae

Table 1 shows the formula to calculate for each metric. SV is the difference between the EV (Earned Value) and PV (Planned Value). It will determine whether the project is ahead (SV > 0), right on track (SV = 0), or behind schedule (SV < 0) in a specific period or task. Meanwhile, CV is the difference between EV and AC (Actual Costs). This dictates whether the project is under budget (CV > 0), perfectly on budget (CV = 0), or over budget (CV < 0) during a certain period.

On the other hand, CPI is the ratio of the EV to the AC. This will help in checking if the project is cost-effective. If the CPI is:

- less than one (a negative number), then it means that the project is over budget so far
- equal to one (1), then it means that the project is perfectly on budget so far
- more than one (a positive number), then it means that the project is over budget so far

The Schedule Performance Index, which is the ratio of the EV to the PV, is like the SV, only in terms of the overall timeline. The aim is to consistently have an SPI that is either close to 1, or if possible, be a little under 1.

5.3.3. Reporting Format

Reporting on cost management will be included in the monthly project status report. The Monthly Project Status Report will include a section labeled, "Cost Management". This section will contain the Earned Value Metrics identified in the previous section. All cost variances outside the thresholds identified in this Cost Management Plan will be reported on including any corrective actions planned. Change Requests which are triggered based upon project cost overruns will be identified and tracked in this report.

5.3.4. Cost Variance Response Process

The Control Thresholds for this project is a CPI or SPI of 1, as stated above in Measuring Project Cost. If the Project Sponsor selects a corrective action option, they may choose from the following:

- Reducing the scope of the project
- Reducing the quality of the project deliverables
- Increasing the budget for the project
- Increasing productivity or efficiency of project team members

The Project Manager will monitor the implementation of the corrective actions and provide regular updates to the Project Sponsor on the status of the project budget. If the project continues to exceed the Control Thresholds, the Project Manager will forward the issue to their Project Adviser for further action.

5.3.5. Cost Change Control Process

The cost change control process will include the following steps:

1. **Identification of Cost Change:** The Project Manager or any team member who identifies and proposes a potential cost change must document and bring it to the attention of the Project Sponsor through a Cost Change Request Form.

2. **Analysis of the Cost Change:** The project team will analyze the cost change to determine its impact on the project schedule, budget, and overall performance.
3. **Approval of the Cost Change:** The Project Manager will present an analysis of the cost change to the Project Sponsor and other relevant stakeholders. The Project Sponsor will then approve or reject the cost change based on the analysis provided.
4. **Implementation of the Cost Change:** Once the cost change is approved, the Project Manager will update the project cost baseline and implement the necessary cost changes to the project plan in accordance with the project schedule and budget.
5. **Tracking and Monitoring of the Cost Change:** The Project Manager will track and monitor the cost change to ensure that it is implemented effectively and efficiently. The project team will regularly review the progress of the cost change and adjust, as necessary.
6. **Reporting on the Cost Change:** The Project Manager will report on the cost change to the Project Sponsor and other stakeholders. The report will detail the factors contributing to the cost change, its implications for the project timeline, budget, and quality of work, as well as the progress achieved in managing the situation.

The cost change control process is a crucial aspect of managing the SurveiRams ticketing system project's financial aspects. By analyzing and approving cost changes, the project can ensure that it remains within the allocated budget and avoids any unexpected financial challenges. Regular reporting on cost changes will allow the project manager to keep the project sponsor and other key stakeholders informed of any financial updates and ensure transparency throughout the project's lifecycle. By adhering to this cost change control process, the SurveiRams ticketing system project can achieve its objectives and deliver quality results within the specified budget.

5.3.6. Project Budget

The budget for this project is detailed below. Costs for this project are presented in various categories:

SurveiRams Ticketing System				
Budget	PHP 1,498,450.80	Project Duration		9.5 months
Project Cost Elements				
Manpower Cost: Estimate *based on glassdoor*				
Role	**Average Salary (monthly)**	**Number of persons**	**Number of months**	**Total Salary**

	Item(s)	Price per Unit			Total Cost
1.	Quasar Front-end developer – junior level	PHP 35,000.00	1	4	PHP 140,000.00
2.	Back-end developer – junior level	PHP 25,000.00	1	4	PHP 100,000.00
3.	Project Manager	PHP 42,250.00	1	9.5	PHP 401,375.00
4.	Software Tester	PHP 25,485.00	1	1	PHP 25,485.00
5.	Documentation Specialist	PHP 16,000.00	1	9.5	PHP 152,000.00
					Total PHP 818,860.00

Hardware			
Item(s)	**Price per Unit**	**Number of Units**	**Total Cost**
1. Laptops (Lenovo IdeaPad 5 15)	PHP 40,999.00	5	PHP 204,995.00
2. Logitech Mouse (Wireless mouse Logitech M191)	PHP 804.60	5	PHP 4,023.00
3. Keyboard (A4Tech KRS-92 Natural_A FN Keyboard)	PHP 499.00	5	PHP 2,495.00
4. Printer(Canon Pixma E3370 Inkjet Printer)	PHP 5,595.00	1	PHP 5,595.00

			Total	PHP 217, 108.00

Software				
Item(s)	Price per License	Number of Licenses	Number of Months	Total Cost
1. Quasar	*free of use	2	10	
2. Github	*free of use	2	10	
3. Visual studio	*free of use	2	10	
4. Openproject	*free of use	5	10	
5. MS Teams Essentials MS 365	PHP 1,126.00	5	10	PHP 11,260.00
			Total	**PHP 11,260.00**

Recurring Payment			
Item(s)	Fee per Month	Number of Months	Total Cost
1. Monthly Rent 25 sqm – Better Living Triple Tech bldg.	PHP 20,000.00	10	PHP 200,000.00
2. Electric bill Meralco	PHP 5,000.00	10	PHP 50,000.00
3. Internet bill FlexiBiz 120	PHP 6000.00	10	PHP 60,000.00
		Total	**PHP 310,000.00**

Onetime Payment				
Item(s)	**Price**		**Number of months**	**Total Cost**
1. Internet bill FlexiBiz 120 – installment fee	PHP 5,000.00		1	PHP 5,000.00
			Total	**PHP 5,000.00**
Contingency Cost				
Item(s)	**Price**			**Total Cost**
1. Estimated contingency cost (Total overall costings * 10%)	PHP 136,222.80			**PHP 136,222.80**
Estimated Total Project Cost				
Grand Total				**PHP 1,498,450.80**

Table 8. Project Budget

5.4. Schedule Management Plan

5.4.1. Introduction

Managing a project's schedule is one of the most important things to do. Discussed in this document are Schedule Management Approach, Schedule Control, Schedule Changes and Thresholds, and Scope Change. These must be elaborated as schedules are not always set in stone. There are unforeseen risks that might occur that could offset a project's schedule.

5.4.2. Schedule Management Approach

Once a preliminary schedule has been produced, the project team will regularly review and update the schedule to ensure that the project stays on track. In addition to the project schedule, Earned Value Measures will be used to monitor and compare budgeted or scheduled progress against actual progress.

Any changes to the schedule will be communicated to all stakeholders promptly. Regular monitoring and tracking of the project will be done to ensure adherence to the schedule.
- The team will also utilize project management software to facilitate task tracking and ensure that deadlines are met.
- The project manager will be responsible for monitoring the project's progress against the schedule, identifying potential delays, and taking corrective action where needed.
- The team will also hold regular status meetings to discuss progress and identify any issues that need to be addressed.
- The project manager will provide regular status reports to stakeholders, including the project sponsor, to keep them informed of the project's progress.

5.4.3. Schedule Control

Frequency of Updates and Reviews:
- The project schedule will be updated weekly by the project manager.
- A weekly schedule review meeting will be held to review the project's progress against the schedule.
- Any changes to the schedule will be communicated to the project team and stakeholders within 48 hours (about 2 days) of being made.

Roles and Responsibilities:

- The project manager is responsible for maintaining and updating the project schedule and communicating any changes to the team and stakeholders.
- To ensure optimal project management and successful project delivery, the project team must finish all the required deliverables on time.
- The project team is responsible for providing accurate and timely information to the project manager to help ensure the schedule is up-to-date and on track.
- Stakeholders are responsible for reviewing the project schedule and providing feedback or concerns to the project manager promptly.

Communicating Schedule and Progress:

- The project manager will regularly communicate the project schedule and progress to the project team and stakeholders.
- Progress reports will be provided weekly to stakeholders, highlighting any major accomplishments or issues that may impact the project schedule.
- The project manager will also provide a monthly schedule status report to stakeholders, which will include an updated schedule and any changes made during the month.

In conclusion, effective schedule control is critical to the success of the SurveiRams project. By establishing clear roles and responsibilities and maintaining open communication with the project team and stakeholders, the project manager can ensure that the project stays on schedule and within budget. The latest schedule can be found in Appendix A.

5.4.4. Schedule Changes and Thresholds

Schedule changes and thresholds are critical elements of project management. It is essential to have a defined process in place to ensure that any schedule changes are well-documented and approved by the appropriate project stakeholders. Before making any changes to the schedule, the project team must complete the Schedule Change Request Form found in Appendix B. This form must include the proposed changes, justification for the changes, and the potential impact on the project's timeline, budget, and resources. The project sponsor must approve the schedule change request, and the updated schedule

must be communicated to all relevant stakeholders. By following this process, the project team can ensure that all schedule changes are transparent, well-documented, and aligned with the project's goals and objectives.

The project manager is responsible for submitting a Schedule Change Request Form to the project sponsor for approval before making any changes to the project schedule. Once approved, the project manager will update the schedule and communicate the changes and their impact to the project team and stakeholders. All change requests will be archived in the project records repository.

5.4.5. Scope Change

The team will need to evaluate the impact of any change in project scope that is authorized by the project sponsor on the present timetable. When an issue arises in a project that requires a substantial revision of the project scope, a change proposal can be considered. The team should approach any modification carefully given that the outcome could have a favorable or negative impact on the project's advancement. Any team member may request modifications, but they must be submitted in the form of a project change request document to the project stakeholder.

5.6. Change Management Plan
5.6.1. Introduction

A well-defined change management plan is vital to the effective execution of any project, including the SurveiRams Tiketing System project. This plan establishes a structured approach for identifying, assessing, and implementing changes that may arise throughout the project lifecycle. It ensures that all modifications undergo thorough evaluation, remain within the project's scope, and are effectively communicated to stakeholders.

The change management strategy encompasses a defined process for submitting, evaluating, and approving changes. This process is communicated to all stakeholders, who are encouraged to submit their modification requests. The project team then assesses these requests, considering their impact on the project's schedule, cost, and quality. Approved changes are implemented in an

organized and controlled manner, while rejected changes are documented and archived for future reference.

Understanding the importance of adhering to the established change management strategy is crucial as changes made outside of this framework can negatively impact the project's progress and outcome. All stakeholders must recognize this and be familiar with the change management process to ensure that the project stays on course and that any implemented changes actively contribute to its overall success.

5.6.2. Change Control Board

The Change Control Board consists of a designated group of stakeholders who can approve or reject changes related to the SurveiRams System. The following table provides a concise overview of everyone serving on the Change Control Board:

Change Control Board Role	Role	Name	Contact	Responsibilities
Change Control Board Chair	Project Sponsor	Mr. Jose Manuel Garcia	manoletg@apc.edu.ph	- has the authority to grant or decline significant changes. - responsible for assessing low-impact changes and have the power to overturn the Project Manager's decisions regarding change requests.
Change Control Board Chair	Project Sponsor	Mr. Jojo F. Castillo	jojoc@apc.edu.ph	- has the authority to grant or decline significant changes. - responsible for assessing low-impact changes and have the power to overturn the Project Manager's decisions regarding change requests.
Change Control Board Member	Project Manager	Ian Onrubia	iconrubia@student.apc.edu.ph	- Assess the impact of the change request as high or low. - Approve or reject low-impact changes. - Develop an action plan for implementing approved change requests.

				• Communicate the necessary steps for implementing the changes. • Update the project plan, budget, and schedule as required.
Change Control Board Member	Change Coordinator	Jan Karlo Boongaling	jmboongaling@student.apc.edu.ph	• Oversee the implementation of the Change Management process. • Update the change logs, as necessary. • Prepare the Change Status Report. • Generate a monthly report summarizing the status of the change control logs.

Table 9. Change Control Board

5.6.3. Roles and Responsibilities

Below is a breakdown of the responsibilities of each project member involved in the change management process:

Name	Project Role	Responsibilities
Mr. Jose Manuel Garcia	Project Sponsor	• Monitor and address high impact change requests promptly. • Monitor the decisions made by the Project Manager regarding minimal impact change requests. • Submit a change request if necessary. • Review the change request log and reports for alignment with the proposed changes.
Mr. Jojo F. Castillo	Project Sponsor	• Monitor and address high impact change requests promptly. • Monitor the decisions made by the Project Manager regarding minimal impact change requests. • Submit a change request if necessary. • Review the change request log and reports for alignment with the proposed changes.
Ian Christopher Onrubia	Project Manager	• If necessary, submit a change request. • Review the change request log and reports to ensure consistency with the changes. • Conduct impact analysis for each change request to distinguish between low-impact and high-impact requests. This will assist the Project Sponsor in making decisions regarding high-impact requests. • Supervise the entire change request process in collaboration with the Change Coordinator.

Jan Karlo Boongaling	Change Coordinator	• Assists the project manager in analyzing the change requests
Security Guard	Internal User of the System	• Submit a change request if deemed necessary. • Review the change request log and reports to ensure alignment with changes.
ITRO	Internal User of the System	• Submit a change request if deemed necessary. • Review the change request log and reports to ensure alignment with changes.
BMO	Internal User of the System	• Submit a change request if deemed necessary. • Review the change request log and reports to ensure alignment with changes.
Development Team	Developers	• Carry out the technical tasks outlined in the change request action plan. • Evaluate the change request log and reports to ensure they are consistent with the implemented changes.

Table 10. Change Roles and Responsibilities

5.6.4. Change Control Process

The SurveiRams Ticketing System Project Change Management Process places emphasis on managing the scope and modifications through the change request method. The process outlines the steps involved in handling changes. The SurveiRams Project's Change Control Process adheres to the organization's standard change procedure for all projects. The project manager is responsible for executing the change management approach for each change request.

Figure 2. High level view of the change request process flow

1. **Assessing the need for a change (Stakeholders)**: The change requestor will submit a completed change request form to the project manager.
2. **Keeping track of change requests (Project Manager, Change Coordinator)**: Throughout the project's lifecycle, the project manager and the change coordinator will maintain a log of all received change requests.

3. **Evaluating the change (Project Manager, Team, Requestor)**: The project manager will conduct a preliminary analysis of the change's impact on risk, cost, schedule, and scope. They will also consult with team members and the change requestor for further clarification.
4. **Sending the change request to CCB (Change Control Board) (Project Manager)**: The project manager will forward the change request and preliminary analysis to the CCB (Change Control Board) for review.
5. **Receiving the Change Request Decision (CCB)**: Based on the information provided, the CCB will deliberate on the proposed change and determine whether it will be approved.
6. **Implementing the modification (Project Manager)**: If the CCB approves a change, the project manager will update and establish new baselines for project documents.

5.7. Communications Management Plan

5.7.1. Introduction

The Communications Management Plan details the processes and strategies for communication that the project team and stakeholders of the SurveiRams project must follow. Planning this is important as communication between all stakeholders ensures good cooperation and a successful outcome that meets the project objectives.

The plan includes what approach the team plans to use and what might hinder effective communication among all stakeholders involved. The rest of the document discusses specific guidelines, agreements, and expectations on how communication will flow. The processes on how communication escalates within the hierarchy of all stakeholders depending on the need and reason are expounded on.

5.7.2. Communications Management Approach

The SurveiRams project will be taking the hybrid and two-way approach to manage communication between stakeholders. Each stakeholder can choose whether communication with them will be online or in person to accommodate their needs. This ensures that even distance will not hinder them to update each other with the project status, arising risks, and other matters related to the project.

A team in Microsoft Teams will be created for a central communication zone. Documents such as management plans, meeting minutes, and status reports will be posted there for automatic cloud storage.

The project team and stakeholders must have a two-way communication when needed. Feedback for one another or for every deliverable must be given to ensure stakeholder satisfaction as well as quality assurance.

5.7.3. Communications Management Constraints

There are some factors that could limit the communication processes among stakeholders in the project. Identifying these constraints will aid the project team in strategizing for mitigating and avoiding actions to ensure that the communication among them is efficient.

The following are the identified possible constraints:

Schedule of stakeholders	The team members are students and most of the stakeholders are working full-time. Freeing time for meetings may be difficult.
Technical Issues	Online meetings are part of the communication methods. Device condition, internet connection, and technology literacy may affect the communication process.
Time constraints	The amount of communication between stakeholders might be low due to limited time to do so.

Table 11. Communication Constraints

5.7.4. Stakeholder Communication Requirements

The Stakeholder Communication Requirements portion of the document is vital for the project team and stakeholders to maintain a healthy professional relationship. It outlines the expectations and standards that all stakeholders are to uphold throughout the lifecycle of the project, which are the following:

Quick updates	Should any progress, change, or risk arise, relevant stakeholders must be informed within 24-48 hours (about 2 days).
Confidentiality	Only relevant stakeholders will receive confidential information.
Tailored communication	Each stakeholder is different, so communication processes with them must be tailor-made to accommodate their needs.
Two-way communication	Stakeholders not only receive information but give their feedback as well. This could be about the deliverables or the project team themselves.

Table 12. Stakeholder Communication Requirements

5.7.5. Roles

Roles	Responsibilities
Project Sponsor	The people who provide finances and input on what direction the project should go. They are also reviewing requests for any changes needed.
Project Manager	The person leading the team members from the initiation to the closing of the project. They make sure all deliverables are made on time without going over budget, and that the project objectives are met.
Documentation Team	The project team members responsible for the documents needed for the project. They also update them should any change occur.
Development Team	The members of the project team deal with the actual development of the application. This could include the database and system architecture.

Table 13. Communication Roles

5.7.6. Project Team Directory

The following table presents contact information for all persons identified in this communications management plan. The email addresses and phone numbers in this table will be used to communicate with these people.

Name	Position	Internal, External	Project Role	Contact Information
Jose Manuel Garcia	Campus Architect	Internal	Project Sponsor	manoletg@apc.edu.ph
Jojo Castillo	ITRO Head	Internal	Project Sponsor	jojoc@apc.edu.ph
Ian Christopher Onrubia	Project Manager	Internal	Project Manager	iconrubia@student.apc.edu.ph

Jan Karlo Boongaling	Documentation Specialist	Internal	Documentation Team	jmboongaling@student.apc.edu.ph
Alexis Martin	Quasar Front-end Developer	Internal	Development Team	atmartin@student.apc.edu.ph
Vladimir Ken Perez	Back-end Developer	Internal	Development Team	viperez@student.apc.edu.ph
Yuan Alexandrei Serafico	Software Tester	Internal	Documentation Team	yaserafico@student.apc.edu.ph

Table 14. Project Team Directory

5.7.7. Communication Methods and Technologies

To prevent misunderstandings, the team needs to be open with each other and the stakeholders. The team must inform the stakeholders of the project's status on a regular basis to avoid misunderstandings. The stakeholders will need information, including reports, issues, and updates for them to understand what is happening in the project.

Factors to be considered in determining the best communication methods and technologies for the SurveiRams system:

Stakeholder's Preference:
Stakeholders may prefer to meet online or face-to-face. It really depends on what mode of communication they want. Either way, if they want to meet online, the team may set a meeting through Microsoft Teams.

Type of information
The team may just send an email with the links of their documents for the stakeholders to consult with that does not require a meeting. This includes weekly updates, reports, and issues.

Budget and Resources Available
The chosen method of communication should be aligned with the budget.

Therefore, the SurveiRams System suggests using a combination of project management software, email, and video conferencing apps like Microsoft Teams to keep the stakeholders updated and achieve the project's goals.

5.7.8. Communications Matrix

Communication	Purpose	Medium	Frequency	Audience
Project Planning	To establish a solid base and maintain the team's focus and progress	OpenProject, Meeting	Once Before the start of the project	Project Manager Project Team Project Sponsor
Release planning	To manage dependencies	OpenProject, Meeting	Once every month	Project Manager Project Team Project Sponsor
Monthly Sprint Planning	To determine monthly goal	OpenProject, Meeting	Once before starting another feature	Project Manager Project Team Project Sponsor
Management processes	To ensure there is coordination in the team	Email, OpenProject	Once every week	Project Manager Project Team Project Sponsor
Product backlog	Inform stakeholders the tasks that has not been processed and need to be addressed	Email/ Meeting	When necessary	Project Manager Project Sponsor
Project Consultation	Enhance project by having stakeholder's guidance and comments	Meeting	Once every week	Project Manager Project Team Project Sponsor
Project Update	Weekly update on the progress of the project	Email	Once every week	Project Manager Project Team Project Sponsor

Table 15. Communications Matrix
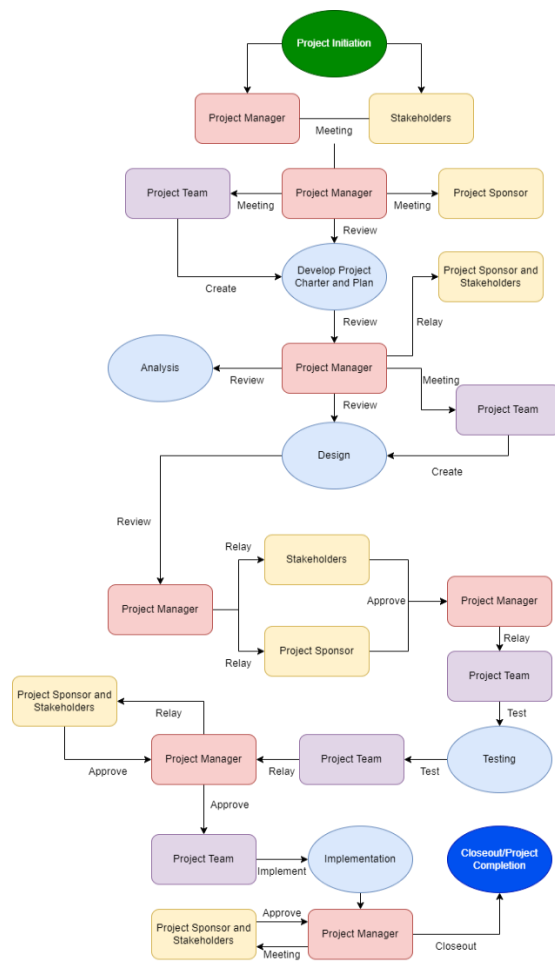
5.7.9. Communication Flowchart
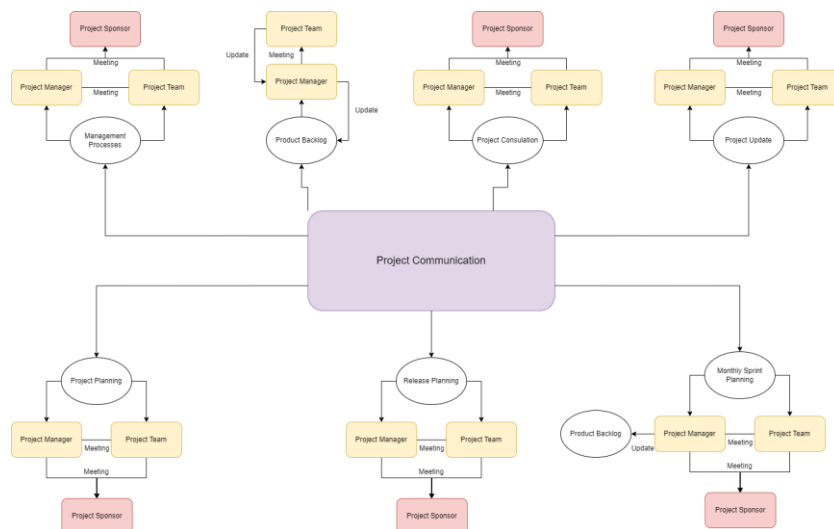

Figure 3. Communication per Phase

Figure 4. Communication per Activity

5.7.10. Guidelines for Meetings

The principles and recommendations in meeting guidelines serve to ensure successful meetings. These will serve as the project team's meeting protocol guidelines. encouraging interaction, participation, and successful outcomes. Project SurveiRams is not an exception, setting up clear meeting rules is crucial for ensuring that meetings are efficient, effective, and productive.

Having clearly outlined meeting guidelines enables project team members and stakeholders to come well-prepared and actively engage in discussions, enhancing their participation. Furthermore, it allows the project manager to maintain consistency and organization throughout meetings, preventing any potential confusion or misunderstandings.

The following guide is to help the project team to initiate a successful meeting:
- **Define Clear Objectives:** Start by clarifying the purpose and objectives of the meeting. Clearly communicate what you aim to accomplish. Ensure that all participants are aware of the desired outcomes.
- **Prepare an Agenda:** Create a well-structured agenda that outlines the topics to be discussed, the time allocated for each item and any necessary materials or preparations.
- **Start and End on time:** Punctuality is crucial for effective meetings. Begin the meeting promptly at the scheduled time, regardless of whether all participants are present. Respect everyone's time by ending the meeting on time.
- **Encourage active participation:** Create an environment that encourages people to participate and speak. Encourage diverse perspectives, ask open-ended questions, and provide opportunities for everyone to contribute.
- **Allocate time effectively:** Allocate sufficient time for each agenda item, considering its importance and complexity. Prioritize critical discussions and be mindful of time constraints. If needed, table less urgent topics for subsequent meetings.
- **Document key points and action items:** Assign someone to document the meeting minutes or key takeaways. Capture important decisions, action items, and responsibilities assigned to individuals. Share the minutes with participants after the meeting to ensure everyone is aligned.
- **Follow up on action items:** Monitor progress on action items and provide updates in subsequent meetings. Hold individuals accountable for their assigned tasks and track their completion. This ensures that the

outcomes of the meeting are implemented effectively.

By adhering to these meeting guidelines, the project team can enhance the efficiency, collaboration, and overall effectiveness of your meetings, leading to better outcomes and stronger teamwork.

5.7.11. Communication Standards

The best communication standards for the SurveiRams project may include the following:

- **Regular Team Meetings:** Schedule regular team meetings mostly once or twice a week to discuss project progress, address challenges, and ensure everyone is aligned. These meetings can be conducted in person or remotely, depending on the team's location.
- **Active listening:** Engage in attentive listening, focusing on understanding others' perspectives and ideas. Avoid interrupting and demonstrate respect for the speaker by giving them your full attention.
- **Clear and concise expression:** Express your thoughts and ideas clearly, using simple and concise language. Avoid jargon or overly technical terms that may confuse others.
- **Respectful dialogue:** Foster a respectful and inclusive environment where all participants feel comfortable expressing their opinions. Treat others with courtesy and avoid engaging in personal attacks or disrespectful behavior.
- **Constructive feedback:** Provide feedback in a constructive and tactful manner, emphasizing specific points and suggestions for improvement. Avoid overly critical or negative language that may hinder collaboration.
- **Clarity in questioning:** Ask clear and relevant questions to seek clarification, gather information, or prompt deeper discussion. Avoid vague or ambiguous questions that may lead to confusion.
- **Summarize and recap:** Periodically summarize key points and takeaways from the discussion to ensure everyone is on the same page. This helps consolidate information and maintain focus throughout the meeting.
- **Follow up:** After the meeting, ensure that any action items or decisions are documented and communicated to relevant parties. Take responsibility for assigned tasks and provide updates, as necessary.
- **Communication Channels:** Establish clear channels of communication for the project team, such as email, instant messaging platforms, project management tools, or collaboration software. Ensure that everyone knows which channels to use for distinct types of communication.
- **Documentation:** Emphasize the importance of documenting project-related information. This includes maintaining a project repository for

code and design assets, documenting requirements, technical specifications, meeting minutes, and any decisions made during the project.

- **Status Updates:** Regularly provide status updates on project milestones, progress, and any blockers or challenges. This can be done through project management tools, email, or shared documents. Transparent and timely communication helps the team stay informed and take necessary actions.

5.7.12. Communication Escalation Process

The ideal and best communication escalation process for the SurveiRams project would involve the following steps:

1. **Direct Communication:** Encourage team members to communicate directly with each other for routine project-related matters. This includes discussions about tasks, progress updates, and minor issues.
2. **Team Lead/Manager Involvement:** The next step is to include the appropriate team lead or manager if a communication problem persists or if team members are unable to fix it on their own. The team leader or manager may facilitate the conversation, clear up any confusion, and assist in coming to a decision.
3. **Project Manager/Project Sponsor Involvement:** If the issue remains unresolved or requires higher-level intervention, it should be escalated to the project manager or project sponsor. The project manager or sponsor will assess the situation, provide guidance, and take necessary actions to address the issue.
4. **Project Stakeholder Involvement:** In cases where the issue involves project stakeholders, such as clients or end-users, and it cannot be resolved at the team level, escalate the matter to the project stakeholder(s). This may include scheduling a meeting or providing a detailed written report outlining the issue and the attempts made to resolve it.
5. **Post-Incident Review:** After a communication issue has been resolved, conduct a post-incident review to analyze the root cause, identify areas for improvement, and implement any necessary corrective or preventive actions. This review helps prevent similar communication issues in the future.

Note that the escalation process should be flexible and adaptable to the project's specific needs. The project team should review the escalation process regularly to ensure that it remains effective and efficient in addressing communication related issues.

5.7.13. Glossary of Communication Terminology

Term	Definition
Team Meetings	Scheduled Gatherings of the project team
Active Listening	Engaging in attentive listening to understand others' perspectives without interruption.
Constructive Feedback	Providing Feedback in a tactful and helpful manner to promote improvement.
Non-verbal cues	Observing and Interpreting body language and facial expressions to understand reactions and sentiments.
Follow-up and Follow-through	Documenting action items, decisions and ensuring their completion.
Post-Incident Review	A review after resolving a communication issue to analyze the root cause, identify areas for improvement, and implement necessary corrective or preventive actions.
Project Manager	The individual responsible for planning, executing, and overseeing a project from initiation to completion, including managing resources, risks, and stakeholders.
Project Management	The application of knowledge, skills, tools, and techniques to achieve project objectives within defined constraints, such as scope, time, cost, and quality.
Communication Standards	Standard templates, formats, or documents used for communicating within a project.
Project-related matters	Tasks, issues, updates, materials that are related to the project

Communication Channels	Is where the team can communicate whether personally or through software applications like MS teams, Facebook Messenger, Discord etc.,
Documentation	All documents related to the project

Table 16. Glossary of Communication Terminology

5.8. Quality Management Plan

5.8.1. Introduction

Quality Management Plan for the SurveiRams System is essential to maintain the project's quality. With this guide, the team can evaluate the system for the betterment of it. Additionally, the plan has a framework for evaluating the quality.

Goals of the quality management plan:
- Make sure the project satisfies the expectations of the stakeholders.
- Indicate the quality standards that will be applied for evaluating the project.
- Clarify the roles and responsibilities of team members to meet quality standards.
- Identify and fix any potential quality issues.
- Decide for efficiently managing and upholding project quality over the length of the project.

The SurveiRams System will operate completely functionally, have a user-friendly interface, and be compatible with the organization's existing technology infrastructure. The Quality Management Plan will cover both the system and process quality standards. The plan will outline specific procedures, tools, and techniques for monitoring and reporting quality performance.

A quality management plan's tools include:

Definition of Done	A clear explanation of what makes a finished product increment.
Acceptance Criteria	Criteria must be met for it to be approved by the project manager.
Continuous Integration	Regularly updates the code to make sure it is good for releasing.

Test-Driven Development	A way that emphasizes creating tests prior to writing code to ensure that the resulting code meets the desired quality standards.

Table 17. Quality Management Tools

As a result, the quality management plan will establish a thorough framework for effectively managing project quality from start to finish. It will guarantee that the project satisfies and/or exceeds the expectations of stakeholders and offer a clear framework of processes, resources, and roles for identifying and resolving quality issues. It is necessary that everyone involved is aware of the plan and understands how they may contribute to its success.

5.8.2. Quality Management Approach

The Quality Management Plan for the SurveiRams project will utilize Hybrid Project Management which combines Scrum and Waterfall methodology to ensure that the project meets or exceeds all stakeholders' quality expectations. The approach will prioritize delivering high-quality products per work package and meeting customer requirements by following a step-by-step process.

The following are the roles and duties for the quality management plan:

Role	Description
Project Manager	The Project Manager oversees establishing the standards and making sure the final product satisfies all stakeholders.
Project Team Leader	The Project Team Leader is responsible for ensuring that the team is following the Scrum framework and works with the Product Owner, Product Manager and Development Team to enhance the final product.
Project Development Team	The Project Development Team's responsibilities include producing a high-caliber product and upholding the specified quality policies and standards.
Project Sponsor	Provides executive support and approval for the project.

Table 18. Quality Management Roles and Duties

Every aspect of the project will integrate quality management, involving the entire team. The team will aim to create a Minimum Viable Product (MVP) so that they may receive early feedback from users and thus improve the product.

The approach will include the following steps:

Set Quality Standards	The project manager will define quality standards based on Agile and Scrum methodology, with a focus on delivering value to the client.
Quality Planning	The team will work closely with stakeholders to identify the project's requirements and prioritize the most prominent features. To make sure that each version of the project complies with the set standards, the team will create a Product Backlog.
Quality Control	To identify issues or bugs, the team will conduct testing during each sprint to manage and control the quality of the project and meet its requirement or goal.
Quality Assurance	To avoid problems during the project, preventive measures will be implemented through quality assurance. The team will implement proper testing procedures to ensure that the project follows the set standards.
Continuous Improvement	To ensure continuous functionality of the project, the team will regularly monitor and assess its performance. They will gather feedback from stakeholders, identify areas that require improvement, and make necessary adjustments to enhance the project's overall quality.
Communication	For the project to succeed, communication with the stakeholders is needed to give them awareness of the product's status and have their feedback on it.

Table 19. Quality Management Process

A risk management strategy will be created to detect and mitigate any potential quality issues that may arise throughout the course of the project. Overall, the SurveiRams system's quality management approach will prioritize using Hybrid Project Management to provide a high-quality product that satisfies the intended client's criteria. To guarantee that the project meets or exceeds all quality requirements, the methodology will be adaptable and continually improved.

5.8.3. Quality Requirements / Standards

The SurveiRams System places an emphasis on high-quality requirements and standards; thus, the team will collaborate to develop and document them. The client's feedback, tests, and assessments will make sure that these criteria are followed. The following criteria and standards will be followed by the SurveiRams System project:

Requirements for Product Quality:
- Functionality: The SurveiRams System should fulfill its intended purpose and meet functional requirements specified by the Stakeholders and users. It should perform the task in an efficient manner.
- Reliability: The SurveiRams System should work consistently without issues, breakdowns, or failures over sa specified period.
- Performance: The SurveiRams System should meet optimal performance and or exceed the expected standards.
- Design: The SurveiRams System should have an intuitive UI/UX where the users will have an easy time using the application.
- Compatibility: The SurveiRams System should be compatible with the existing devices of APC and its users. It should also be compatible with newer devices.
- Control: A control version of the system must always be available in case of issues.

Requirements for Ensuring Quality of Processes:
- Standardization: All processes must be well-defined and documented in a standardized manner to ensure consistency.
- Clear Roles and Responsibilities: Each should understand their roles and specific responsibilities.
- Continuous Improvement: Processes should be ongoing and always have room for improvement. The development team will apply feedback mechanisms and testing to figure out what parts of the project can be improved and what parts have issues.
- Monitoring: All processes must be monitored by the Project Manager; this will ensure the quality of the deliverables.

Compliance Demonstration:
- Before being delivered to the client, the SurveiRams System will go through extensive testing and evaluation to make sure it satisfies the necessary quality requirements.
- The development team will keep thorough records of all testing and quality assurance procedures, which the client can request.

- The customer will participate in a formal acceptance test to ensure the system satisfies their needs and expectations.
- To guarantee that the system continually complies with the defined quality requirements eventually, the development team will offer ongoing support and maintenance services.

Continual Improvement:

The development team will set up a strategy for continuous improvement by routinely collecting and reviewing client feedback, monitoring system performance, and conducting internal reviews to identify potential improvement opportunities. They will also create a procedure for identifying and addressing any issues that may arise throughout the project. This comprises locating the issue, figuring out why it exists, producing a solution, and then evaluating how well it worked. These procedures will be used in the project to ensure that the SurveiRams System actively adapts to meet shifting client needs while maintaining the required level of quality.

5.8.4. Quality Assurance

To ensure quality is achieved through collaboration and continuous improvement, the SurveiRams Ticketing System project will integrate the QA process into the Agile and Scrum methodology. The following steps will be taken:

- **Defining Quality Standards:** The project team, in collaboration with stakeholders, will establish and document the quality standards in the Quality Management Plan. These standards will be effectively communicated to all stakeholders involved.
- **Agile Quality Auditing:** The project team will conduct quality audits **using** Agile techniques including peer reviews, test-driven development, and continuous integration. These procedures will be used to determine whether the quality criteria have been met and to pinpoint areas that need improvement.
- **Quality Metrics:** The project team will employ quality metrics to monitor and report on the project's adherence to the defined quality standards. To effectively monitor the quality process, the following metrics will be utilized:
  - Performance Metrics: Application Load time, Server Response time.
  - Usability Metrics: User Satisfaction, Task Completion Time, Error Rate.
  - Design Metrics: User feedback, UI/UX design feedback.
  - Scalability Metrics: Response Time under load, Resource Utilization (eg. RAM allocation, CPU (Central Processing Unit) Usage)

- **Continuous Improvement:** To promote continuous improvement in both the product and the quality process, the project team will make use of feedback from metrics and quality audits. Stakeholder participation will be used to identify areas for improvement, and the necessary adjustments will be made.
- **Compliance with Industry Standards:** The project team will ensure adherence to relevant industry standards, including accessibility, security, and data privacy regulations. Regular audits will be conducted to verify compliance with these standards.
- **Reviewing Customer Feedback:** Regular reviews of customer feedback will be conducted to identify any issues or areas requiring improvement. This feedback will play a crucial role in informing the continuous improvement efforts and ensuring that the product aligns with customer needs and expectations.

The project will implement rigorous monitoring, tracking, and reporting of quality assurance metrics to ensure the delivery of a high-quality outcome. Any deviations from the established standards will be promptly reviewed and fixed. The project team will receive regular reports from the software application, which will capture relevant data for these metrics. The quality assurance process will undergo frequent reviews to identify opportunities for enhancement and implement necessary improvements. The objective is to ensure that the SurveiRams System meets the best quality standards, with close monitoring of all quality assurance metrics to guarantee project success.

5.8.5. Quality Control

In Hybrid project management which combines both Scrum and Waterfall methodology, the development process incorporates quality control measures to emphasize continuous testing and feedback. The Quality Control process for the SurveiRams Ticketing System project entails the following steps:

- **Clear Roles and Responsibilities: Each should understand their roles and specific responsibilities**. Whenever possible, automation will be used such as online forms to collect feedback.
- **User Acceptance Testing (UAT):** At the end of each sprint, representative end users will undertake UAT to confirm that the system adheres to their requirements and expectations. Users' feedback will help determine what changes are required.
- **Compatibility Testing:** A variety of platforms, including mobile devices and personal computers, will be used to test the

SurveiRams System in order to ensure compatibility and identify any issues that may arise in various settings.

- **Continuous Monitoring:** The project team will carefully assess the success of the system after deployment, concentrating on key performance metrics including user happiness, response time, and system uptime. This information will help with system improvements, problem identification, and bottleneck removal. The following quality metrics will be utilized to monitor and evaluate system performance:
  - Defect Severity: Classification of defects based on their impact on the system.
  - Test Coverage: Percentage of the system subjected to testing.
  - Test Case Pass Rate: Percentage of test cases successfully executed.
  - User Happiness: Measured through surveys and user feedback.
  - Response Time: Duration for the system to respond to user requests.
  - System Uptime: Percentage of time the system is available and functioning as expected.
- **Monitoring and Documenting Quality Assessments:** The project team will diligently track and record the results of the Quality Control process, enabling ongoing monitoring of the project's advancement and the impact of any corrective measures implemented. Thorough documentation will provide valuable insights into the project's quality status.
- **Continuous Improvement:** The Quality Control process will undergo regular reviews to identify areas for enhancement and embrace opportunities for improvement. The project team will proactively seek out avenues to refine the process and swiftly incorporate necessary adjustments. This commitment to continuous improvement ensures that the Quality Control process remains adaptable to evolving requirements and industry best practices.

In conclusion, the SurveiRams Ticketing System Project's Quality Control process will be deeply integrated into the development cycle, encompassing continuous testing, user feedback, and performance monitoring. The project team will vigilantly evaluate and maintain product quality, ensuring alignment with established standards and customer expectations.

5.8.6. Quality Control Measurements

The SurveiRams Ticketing System project will leverage a Hybrid Project management methodology to foster continuous inspection and adaptation throughout its lifecycle, promoting a transparent and collaborative approach to quality control. Quality control measures will be implemented at each stage of the development process and documented on a shared, accessible platform, replacing static spreadsheets or tables.

The platform will include essential details such as the measurement date, type of measurement (e.g., defect density, error rate, performance metrics, usability metrics, design metrics and scalability metrics), team member responsible for measurement, team member assessing the results, corrective actions taken, completion date of remedial measures, and team member responsible for their implementation.

Real-time dashboards such as OpenProject and visual tools will be utilized to track quality control metrics, enabling all team members to access and understand the data easily. These dashboards will highlight patterns and areas of concern, facilitating prompt action and necessary adjustments.

Regular team reviews, including sprint reviews and retrospectives, will entail the review of quality control metrics and allow for adjustments to the process as needed. Collaboratively, the team will identify potential areas for improvement and implement necessary changes.

In summary, the SurveiRams Ticketing System project will adopt Hybrid Project Management to establish a collaborative and dynamic quality control strategy. Continuous assessment of the product's quality will be carried out, with regular improvements implemented. All quality control measurements will be collected and tracked on a shared platform in real time. The team will collaborate to address any issues and drive necessary enhancements.

5.9. Risk Management Plan
5.9.1. Introduction

SurveiRams is a mobile application designed to develop a centralized system for Asia Pacific College's (APC) Information Technology Resources Office (ITRO), Management Office (BMO), and Security Office. The application will help them manage incident reports and logs and provide insights.

The Risk Management Plan is important for projects following the Agile Methodology to use as a guide on how to identify and respond to risks. The team must enumerate potential risks, plan for responses, and monitor and control said risks from the project's start to finish. Upon completion, the plan will be used every day, and may be revised to fit the project's needs better, thus ensuring that the objectives of the project are achieved on time within budget.

This document's contents include a summary of the risk management process, describing the sequence of steps and who is assigned to do so. Next is a guide for what constitutes a risk and their hierarchy. Followed by this is the monitoring and controlling process for the risks, and last is the risk register.

5.9.2. Top Three Risks

Every project has risks whether foreseen or not. However, in the situation of the SurveiRams project, the three biggest foreseen risks are the following:
1. **Technical Risks** – Risks that are brought by evolving technology, such as failure from either or both software and hardware and cyberattacks resulting in data loss and/or security breaches.
2. **Insufficient Resources: Risks brought by the lack of project resources such as exceeding the project timeline or going over budget, which may delay completion.**
3. **Human Error: Risks brought by the unavoidable mistakes made by humans involved in the project such as the project team, stakeholders, and personnel.**

5.9.3. Risk Management Approach

Agile risk management values lean thinking and efficient communication. This means that for the SurveiRams risk management strategy, the focus will be data gathering and analysis before deciding on a course of action. Stakeholders, sponsors, and the project team must cooperate with each other for the risk management approach.

Specifically, these are the steps to be followed:
- **Risk Identification:** Meetings will be held to discuss relevant risks encountered based on experience from other projects, and a Risk Register will be put together.
- **Risk Assessment: A Risk Assessment Matrix will be constructed to rank the risks discussed based on the probability of their occurrence and the gravity of its impact on the project.**

- **Risk Mitigation:** Mitigation plans will be made for the risks that have a high probability and extreme gravity, which include how to prevent them and minimize their impact.
- **Risk Monitoring:** There might be unforeseen risks that could arise. To be ready to minimize or eliminate them, there will be a bi-monthly examination of the Risk Register and another round of brainstorming for risks not discussed. New risks discovered will be added to the Risk Register.
- **Risk Communication:** All stakeholders must regularly stay connected to be informed about the occurrences of risks and how they are handled. They must also be updated regarding changes in the risk management plan and process.

5.9.4. Risk Identification

After a thorough discussion with the project team, risks to SurveiRams were identified. The team organized these risks into the following categories:

- **Technical:** Risks related to technology
- **Cost:** Risks related to the project budget
- **Schedule:** Risks related to the project timeline
- **Communication:** Risks related to communication among all stakeholders
- **Skills Resource:** Risks related to the project team's skills and expertise
- **External Hazard:** Risks related to nature, society, and the government

These are all the possible types of risks that could affect the project. Updates will be made if another type is discovered. Specific risks under some of these categories will be discussed in the Risk Register below.

5.9.5. Risk Qualification and Prioritization

A Risk Assessment Matrix based on probability and impact was created to aid in ranking the risks in the Risk Register.

Impact Level	Probability		
	1	2	3
1	Low	Low	Medium
2	Low	Medium	High
3	Medium	High	High

Table 20. Risk Assessment Matrix

As shown in Table 20, there are three levels each for the probability and impact of a risk. The lowest level is 1 and the highest is 3. The assessments are the following:

- Low – These are risks with low impact and low probability. Risks assessed as low are negligible and are low priority.
- Medium – These are risks with medium impact and probability. Risks assessed as medium must have mitigation plans at least drafted, and these are medium priority.
- High – These are risks with high impact and probability. Risks assessed as high must have finalized and strong mitigation plans ready and studied by the project team, as these are of high priority.

5.9.6. Risk Monitoring

Risk Management does not stop after mitigating the identified risks. They must be monitored continuously until the end of the project. After the risk's Owner deals with the risk, they must inform all stakeholders of the risk's status and submit a formal incident report to the Project Manager detailing the steps they took to solve the problems the risk caused. The Risk Incident Report format can be found in Appendix C.

Weekly meetings must be held by the project team to review the Risk Register, to ensure that the mitigating/avoiding actions are still effective. Stakeholders must be informed should an update be made for the Risk Register. These meetings must also include review of past risks that occurred to make sure the probability of their future occurrence is lower, identify what might cause this risk to repeat, and create a plan to avoid this.

To conclude, risks must be identified, assessed, mitigated or avoided, and monitored, with all of the stakeholders maintaining open communication. This is to ensure that the Risk Management Plan remains effective and up to date. Having this in this project will lead to an output that not only meets the objectives, but is of high quality.

5.9.7. Risk Mitigation and Avoidance

A Risk Register was made for the project team to have a centralized guide to refer to upon encountering risks. This will be disseminated to all the stakeholders for easy access, so they can be prepared with their tasks and responsibilities when the time comes. Although there are numerous risks that could happen, only the five most likely ones to occur for the SurveiRams project are listed below.

5.9.8. Risk Register

Risk ID	Risk Category	Risk Description	Risk Assessment	Owner	Mitigating/Avoiding Action
01	Technical	Data loss	High	Developers	Create backups for the data such as exporting the database contents into a document
02	Technical	System Bugs	Medium	Developers	Revisit and debug source code
03	Technical	Power Failure	Medium	Project Manager	Activate backup electricity generators
04	Technical	Unstable Internet Connection	Medium	Project Manager	Buy load to use mobile data
05	Cost	The project goes over budget	Low	Project Manager	Request for additional budget from Project Sponsors

Table 21. Risk Register

Table 2, the Risk Register, shows the following information that are needed for managing the risks identified:

1. **Risk ID** – The unique identifier assigned to each risk.
2. **Risk Category** – Each risk is labelled based on the categories listed in Risk Identification it falls under.
3. **Risk Description** – The explanation of what the risk is and its effects.
4. **Risk Assessment** – The assessment of the risk based on the Risk Assessment Matrix.
5. **Owner** – The person/s responsible for acting for each risk.
6. **Mitigating/Avoiding Action** – Indicates the steps needed to be done by the Owner to mitigate or avoid the risk. Risks assessed as low will have Avoiding Actions, while those assessed as high will have mitigating actions.

When a risk occurs, the Owner must inform all stakeholders between 24-48 hours (about 2 days) depending on its impact. Next, they must send a Risk Mitigation Request Form (found in Appendix D) to the Project Sponsors containing the Risk ID, incident, cause, their plan to mitigate the risk, and request for the resources they need to do so. The Project Sponsors shall review the report and approve or provide the requested resources so that the Owner may proceed in mitigating the risk.

In case the system is down due to any risk except when there is no internet connection, the contingency plan is to use Microsoft Forms. The security guards may log their incident reports there instead of going back to manually writing in their logbooks. When the system is running again, the team can simply download the form's responses and add it to the database. Another option is to input the details in the application.

5.10. Procurement Plan

5.10.1. Introduction

The project's success depends on the Procurement Management Plan. This plan outlines the project's procurement needs and describes how the process will be handled from the production of procurement papers to the signing of agreements. This plan aims to ensure that all necessary materials are purchased on schedule, within the allotted budget, and at the required quality level for the project. This plan outlines the kind of things that must be purchased, the justifications and deadlines to meet, the contract types to be employed, the risks associated with procurement management, and how these risks will be handled. Additionally, it explains how to calculate costs and assess vendors, including how to use templates and other common procurement methods.

This plan also includes managing vendors, a vital element in the procurement process. In addition, it identifies any qualified sellers if necessary. The plan includes performance metrics for procurement operations to guarantee that the procurement procedure is monitored and controlled throughout the project's life cycle.

To summarize, the Procurement Management Plan's objective is to have an efficient and effective completion of the project's procurement requirements while giving priority to the quality, cost, and schedule. This management provides a roadmap of the procurement process, for stakeholders to be aware and informed of what is happening in the development.

5.10.2. Procurement Risks

Procurement in every project is a vital component that should be taken with care because it involves budget in acquiring goods, services, or work from external sources. Having risks in the procurement may negatively impact the development. Therefore, it is an issue that should be addressed to minimize the impact on the project.

The SurveiRams System incorporates procurement processes that entail several hazards, including but not exclusive to the following:

- Delivery of services or goods within the project timeline from vendor may result in increased costs.
- The absence of competition in the market may lead to higher prices or reduced quality of services.
- Commitments with the vendor and procurement activities may be compromised when there is a sudden change in the project scope, schedule, or budget.
- Misunderstandings between the project team and the vendor may arise when there are no clear specifications, lack of documents and incorrect assumptions.
- Poor communication with the vendor may lead to misunderstandings.
- Vendor does not comply with the regulatory requirements or legal issues, which may impact the project, team, and stakeholder's reputation.
- Inadequate vendor selection or evaluation may result in partnering with unreliable sources that have a low quality of goods or services.
- Contract management oversight may lead the vendor's services or goods and the project team's development to fail.

To mitigate these risks, the Procurement Management Plan includes detailed strategies for risk identification, assessment, and mitigation. The team will consistently monitor the plan throughout the project's duration to specify and address the risks. Moreover, the team will impose accurate procurement processes to control the potential risks associated with procurement management.

5.10.3. Procurement Risk Management

1. **Identification of Procurement Risks**
   The first step in managing procurement risks is to identify and assess them. For the SurveiRams System, potential procurement risks include:
   - Unexpected increase in the cost of goods or services
   - Delays in the delivery of goods or services
   - Incomplete or substandard goods or services
   - Unclear or insufficient contract terms and conditions
   - Misalignment of the vendor's goals with the project
   - Inaccurate estimates of costs and timelines
   - Insufficient supplier qualifications

- Non-compliance service/goods with applicable laws or regulations
- Supply Chain disruptions
- Data breaches
- Contract Disputes/Payment Issues

2. **Risk Mitigation Strategies**

   After identifying the potential procurement risks, it is ideal to plot a strategy to mitigate them. For the SurveiRams System, the following risk mitigation strategies will be put into action:

   - Regularly monitor and evaluate the vendor's performance to ensure they adhere to the project and the team's standards and to the laws and regulation standards.
   - Implement an effective contract management practice to prevent vagueness and ensure clear information.
   - Conducting research in the market to identify lists of reliable vendors with a good record of accomplishment in delivering high-quality goods or services.
   - Establishing a clear delivery schedule, specifications, and performance criteria for the procurement plan.
   - Developing a comprehensive contract terms and conditions that protects the interests of the project and the team.
   - Having a contingency plan to address potential vendor bankruptcy.
   - Conducting a regular risk assessment in the procurement process to identify and address emerging risks.
   - Conduct thorough market research and maintain up-to-date information on market trends and prices.
   - Diversify the supply chain by having multiple suppliers to have an alternative if a supply chain disruption happens.

3. **Assignment of Responsibilities**

   Every person in the team should be given a clear assignment of duties for controlling procurement risks. The procurement manager will oversee identifying and evaluating procurement risks for the SurveiRams System, creating risk mitigation plans, and keeping an eye on risk throughout the procurement process.

   Project manager and the team' s input and feedback on procurement risk management strategies are also valuable and essential.

4. **Communication and Reporting**

   Communication and reporting in the process of procurement risk management is valuable. The regular updates on the procurement risks and risks mitigation activities will be provided to the team.

Communication within the team may be held using online platforms if necessary.

Moreover, a communication plan is developed for the stakeholders to keep informed about any changes or developments made in the procurement risk management.

5. **Continuous Improvement**

    To improve future procurement planning and execution, lessons acquired from risk management and procurement operations will be recorded and communicated to the project team. It should be a constant practice to improve procurement risk management.

    To identify areas for improvement, procurement risk management operations will also be regularly reviewed.

5.10.4. Cost Determination

Determining costs is a key component of the SurveiRams System procurement process. The team will employ a thorough cost determination procedure to choose providers who are both competent and cost-efficient. As part of the cost estimation process, potential suppliers are asked to submit quotes, proposals, or bids in response to an RFP (Request for Proposal). The team must assess the costs related to the procurement process, such as acquisition, delivery, installation, and maintenance costs. The group will evaluate potential cost overruns and suggest measures to reduce them. To promote openness and equity in the selection process, the project team will make cost one of the primary deciding factors.

The cost determination process will involve several stakeholders, such as procurement managers, project managers, financial analysts, project sponsor and team adviser. These parties will work together to make sure that the procurement budget is continuously tracked and that all expenditures are accurately estimated. The project team will use standardized procurement templates and papers to speed up the cost estimation procedure. This will make it easier to guarantee that all cost estimates are accurate and consistent across all procurement operations. The project team will also construct procurement performance measures to evaluate the efficiency of the cost estimation procedure.

Overall, the procurement management plan's cost determination section will be extremely important in ensuring that the SurveiRams System is completed successfully and within the allotted budget.

5.10.5. Procurement Constraints

The following constraints must be considered as part of the SurveiRams project's procurement management process:

1. **Budget Constraint:** The project must be completed within a specific budgetary limit. This constraint restricts the team's flexibility as the project must be aligned with the available financial resources.
2. **Time Constraint:** The project must be delivered within a specified period. This constraint limits the development and deployment according to the project schedule, meeting the required deadlines.
3. **Quality Constraint:** The project must meet certain quality standards and performance expectations. This constraint limits the team to finding suppliers that meet the quality standards needed for the project.
4. **Technical Constraint:** The project must adhere to specific technical specifications or compatibility requirements. This constraint restricts the team's performance due to lack of tools, sub-standard equipments and substandard quality of goods/tools.
5. **Security and Compliance Constraint:** The project must comply with relevant security standards, data protection regulations, and industry-specific compliance requirements. This constraint limits the user confidence in using the application as the system lacks the security standards.
6. **Scalability Constraint:** The project must be scalable to accommodate future growth and increased user demand. This restricts the whole project team due to vendors that cannot provide the required goods/tools for the project.

These constraints must be considered throughout the procurement process to ensure that the SurveiRams project's requirements are met within the project's timeline and budget constraints.

5.10.6. Contract Approval Process

The contract approval process for the SurveiRams project will follow a systematic and organized approach to ensure the timely and effective approval of all contracts. The process will adhere to the organization's policies and procedures and encompass the following stages:

1. **Initiation:** The project sponsor or requester identifies the need for a web application and initiates the contract approval process. This includes

documenting the project requirements, objectives, and expected outcomes.

2. **Preparing the Request for Proposal (RFP):** The project team, in collaboration with the procurement department, prepares a detailed Request for Proposal (RFP). The RFP includes project specifications, technical requirements, timeline, budget, evaluation criteria, and any other relevant information.

3. **Vendor Selection:** The procurement department issues the RFP to potential vendors and suppliers. Interested vendors submit their proposals, which are evaluated based on predetermined criteria such as experience, technical capabilities, price, references, and compliance with security and regulatory requirements.

4. **Proposal Evaluation:** The project team reviews and evaluates the proposals received. They assess each proposal based on the defined evaluation criteria and shortlist the vendors that best meet the project requirements.

6. **Contract Negotiation:** The project team engages in contract negotiation with the selected vendor(s). This includes discussing terms and conditions, pricing, scope of work, service-level agreements, intellectual property rights, data protection, and any other relevant contractual aspects.

7. **Contract Approval:** The revised contract is submitted for final approval to the designated authority, such as a project steering committee, management team, or legal department. The approval authority carefully reviews the contract, considering factors such as budget, alignment with organizational objectives, legal compliance, and risk assessment.

8. **Signatures and Execution:** Once the contract receives final approval, both parties (the company and the vendor) sign the contract, acknowledging their agreement to the terms and conditions. This may involve obtaining signatures from authorized signatories and stakeholders and storing the executed contract in a secure repository.

9. **Contract Management**: After contract execution, a contract management process is established to monitor the vendor's performance, ensure compliance with contractual obligations, track deliverables, manage changes, and handle any issues or disputes that may arise during the project implementation.

It is important to note that the contract approval process may vary depending on the organization's specific procedures, hierarchy, and approval authority levels. Therefore, it is advisable to adapt the process to align with your organization's unique requirements and internal policies.

5.10.7. Decision Criteria

For the SurveiRams project, the following decision criteria will be used by the contract review board:

- **Technical Expertise:** The vendor should possess the necessary technical skills and capabilities to successfully complete the project, demonstrating experience in similar projects and expertise in relevant technologies.
- **Pricing:** The vendor's proposed solution should have competitive and reasonable pricing, which will be evaluated based on market research and comparison with other proposals received.
- **Timelines:** The vendor must demonstrate the ability to meet the project's timeline and deliverables, including key milestones and completion dates.
- **Quality Assurance:** The vendor's record of accomplishment should demonstrate a consistent delivery of high-quality solutions and services, supported by references and testimonials from previous clients.
- **Risk Management:** The vendor should exhibit a comprehensive understanding of potential risks and have effective risk mitigation plans in place. This includes identifying procurement-related risks as well as risks associated with project execution.
- **Sustainability:** The vendor's proposed solution should consider sustainability factors, including environmental, social, and economic aspects. This could involve utilizing eco-friendly materials or supporting local communities.
- **Compliance:** The vendor must comply with all applicable legal, regulatory, and contractual requirements, including intellectual property rights, data privacy, and security protocols.
- **Communication:** The vendor must exhibit excellent communication skills and be responsive to inquiries, concerns, and updates throughout the project lifecycle. Effective and open communication channels are essential for successful collaboration.
- **Scalability:** The vendor's solution should be scalable, allowing for future growth and adaptability to evolving business needs. This includes the ability to accommodate increased user demand, handle larger datasets, and integrate additional features seamlessly.
- **Innovation and Creativity:** The vendor should demonstrate a capacity for innovation and creativity in their proposed solution. This involves providing unique and forward-thinking ideas, leveraging emerging technologies, and offering insights to enhance the overall project outcome.

- **Team Expertise:** The vendor's team members should possess the necessary expertise and experience to contribute effectively to the project. Their qualifications, certifications, and relevant industry knowledge will be evaluated to ensure the availability of a skilled and capable team.
- **Collaboration and Flexibility:** The vendor should exhibit a willingness to collaborate closely with the organization's team, demonstrating flexibility in accommodating changes, feedback, and evolving project requirements. A collaborative approach fosters a productive working relationship.
- **Vendor Stability:** The vendor's financial stability, reputation, and longevity in the industry should be assessed. This helps ensure a reliable and sustainable partnership, reducing the risks associated with vendor instability or unforeseen business disruptions.

The criteria provided ensure that the decision-making process for selecting a vendor for the web application project is comprehensive and aligned with the organization's specific needs and priorities.

5.10.8. Performance Metrics for Procurement Activities

For the SurveiRams project, the following performance metrics will be used for procurement activities:

Supplier Performance:
This metric evaluates the performance of suppliers based on criteria such as on-time delivery, product quality, adherence to specifications, responsiveness to inquiries, and overall satisfaction of the procurement team and end-users.

Procurement Cycle Time:
Cost Savings: This metric measures the cost savings achieved through procurement activities by comparing the negotiated prices or discounts with market rates or previous prices. It helps determine the effectiveness of cost management strategies and identifies opportunities for further savings.

Supplier Diversity:
This metric assesses the diversity and inclusivity of the supplier base, tracking the percentage of contracts awarded to minority-owned, women-owned, veteran-owned, or small businesses. It promotes supplier diversity and supports social responsibility goals.

Contract Compliance:

This metric measures the extent to which suppliers adhere to the terms and conditions specified in the contracts. It evaluates factors such as timely delivery, quality of goods or services, invoicing accuracy, and compliance with regulatory requirements.

Risk Management:

This metric evaluates the procurement team's ability to identify and mitigate risks associated with suppliers, such as financial instability, supply chain disruptions, regulatory non-compliance, or ethical concerns. It helps ensure supplier reliability and minimize potential risks.

Stakeholder Satisfaction:

This metric measures the satisfaction levels of internal stakeholders, such as end-users, project managers, and finance teams, with the procurement process. It involves collecting feedback on factors like responsiveness, accuracy, timeliness, and overall experience.

Process Efficiency:

This metric evaluates the efficiency of procurement processes, such as requisition processing, supplier selection, contract negotiation, purchase order creation, and invoice processing. It aims to identify areas for streamlining and automation to optimize efficiency.

Continuous Improvement:

This metric assesses the procurement team's ability to drive continuous improvement initiatives. It tracks the implementation of process enhancements, cost reduction strategies, supplier performance improvement plans, and other improvement projects.

5.11. Implementation Plan

5.11.1. Executive Summary

The project team has created a transition out plan as part of the project closeout for the SurveiRams Ticketing System. This will enable a smooth transfer of ownership to the new owners. This plan's goal is to give a broad picture of the transition process, including the background of the contract, the system's current situation, and the anticipated transition to the new owners.

To improve their reporting processes, our team and the customer together developed the SurveiRams Ticketing System and accomplished the project's

goals. According to the contract terms, system ownership has now been passed to the client.

The system is functioning and stable right now. The user training process has been finished, and all necessary functionalities have been tested and validated. As we leave, we want to make sure the client has access to all the information and assistance they need to efficiently manage and maintain the system.

To make sure the new owners have a thorough understanding of the system, all project deliverables will be given to them, including technical documentation, user manuals, and source code. Additionally, we will offer the new owners knowledge transfer sessions covering system operations, maintenance, and troubleshooting.

The project's transition out plan consists of a thorough schedule with an emphasis on a successful and flawless handover to the next contractor. User education will take place during the transition plan's implementation phase, which will begin in the middle of April 2024. Documenting lessons learned, updating files and records, obtaining official acceptance, archiving files and papers, and convening a project closeout meeting are just a few of the crucial tasks that are included in the plan's closeout phase. The project closeout meeting is scheduled for the end of June 2024, after these tasks are completed. The transition team will be working closely throughout the entire process to guarantee a seamless handover and reduce any disruptions to the project's operations. The team will be composed of various members, including the project team members, developers, and the transition project manager. The project team hopes to achieve a successful and seamless handover to the new contractor while preserving the quality of the project's deliverables by following this transition strategy and time.

The overall goal of the transition out plan is to guarantee that the client receives a fully functional and long-lasting system and that our team successfully completes the project.

5.11.2. Transition Approach

General Approach:
The project transition process encompasses the following stages:

a. **Identifying Key Variables:** A thorough understanding of the crucial elements, variables, or parameters relevant to the project will be established. This entails identifying critical components that have a significant impact on the project's overall success.

b. **Roles to be assigned:** Each team member's precise roles and duties will be decided. This involves assigning specific tasks and explaining the roles and responsibilities of everyone involved in the project.

c. **Clarifying Responsibilities:** Each team member will have their duties clearly and concisely specified. This makes sure that everyone is fully aware of their own responsibilities and the standards expected of them.

d. **Work Delegation:** Tasks and activities will be assigned to team members who have the necessary knowledge and abilities. The delegation procedure makes sure that the task is distributed effectively and efficiently.

e. **Monitoring Project Progress:** The project's progress will be closely monitored to make sure that tasks and milestones are finished on time. This makes it possible to quickly identify any problems or delays and take immediate corrective action.

f. **Implementing Corrective Action: Appropriate corrective steps will be performed if there are any project-related difficulties or problems.** This could entail changing the project schedule, reallocating resources, or making the necessary corrections to guarantee project success.

These processes are essential to the project management process because they enable efficient staffing allocation, knowledge transfer, effective communication, careful planning, and proactive progress monitoring.

Timeline:
The transition plan is divided into two primary phases:
Implementation Phase (April 18, 2024 – June 26, 2024)
- Identifying Key Variables: Apr 18 – Apr 26 (7 days)
- Determine Roles: Apr 29 – May 3 (5 days)
- Determine Responsibilities: May 6 – May 13 (5 days)
- Delegate the work/User Training: May 14 - May 31 (14 days)
- Progress Monitoring: June 3 – June 12 (7 days)
- Take Corrective Action: June 13 – June 26 (10 days)

<u>Closeout Phase (June 27, 2024 – August 12, 2024)</u>
- Finalizing project deliverables: June 27 – July 3 (5 days)
- Confirm Project Completion: July 4 – July 12 (7 days)
- Review all contracts: July 15 – July 23 (7 days)
- Reviewing Documentation: July 24 – Aug 12 (14 days)

The timeline offers a thorough schedule for every activity, making sure that all transitional activities are finished on time. The successful implementation of each task as specified in the timeline requires careful planning and scheduling.

Assumptions:
To facilitate the transition approach, the following assumptions will be made:
a. The Project Developers and Software Testers will actively participate in the transition process and receive knowledge transfer by being physically present on-site or available for online sessions.
b. To facilitate the knowledge transfer, the project team will give the Quality Assurance Lead all required documents, training materials, and instruction manuals.
c. The project team will receive the necessary hardware and software licenses from Asia Pacific College (APC) to maintain the system.
d. The project team is equipped with the necessary knowledge and abilities to maintain the system after the transition is complete.

5.11.3. Transition Team Organization

1. **Transition Project Manager (TPM):** The person responsible for the transition's overall success. The TPM manages the transition team, makes sure that tasks are finished on time, keeps communication open with the client, and ensures that the transition strategy is followed.
2. **Developers/Technical Lead (DTL):** Responsible for providing technical expertise throughout the project. To understand the system and create a transition strategy, the project team, and the developers/technical lead work closely together. The TL also promotes communication with the new contractor to guarantee a smooth transfer of technical knowledge.
3. **Software Tester Lead (STL):** Tasked with managing testing efforts, developing test plans, and maintaining software quality standards. To

achieve a successful and efficient software testing process, the STL works closely with project managers, developers, and stakeholders.

4. **Quality Assurance (QA) Lead:** Liable for ensuring that all deliverables adhere to the quality requirements outlined in the transition plan. The TPM and the QA Lead collaborate closely to create quality measures and guarantee that all transition tasks are completed to a high standard.

5. **Project Team Members:** Accountable for helping, information, and knowledge about the system. To ensure a smooth transfer of knowledge and skills, they collaborate closely with the TPM, developers, and other team members.

Role	Responsibilities
Transition Project Manager	The person responsible for the transition's overall success. The TPM manages the transition team, makes sure that tasks are finished on time, keeps communication open with the client, and ensures that the transition strategy is followed.
Developers/Technical Lead	Responsible for providing technical expertise throughout the project. To understand the system and create a transition strategy, the project team, and the developers/technical lead work closely together. The TL also promotes communication with the new contractor to guarantee a smooth transfer of technical knowledge.
Software Tester Lead	Tasked with managing testing efforts, developing test plans, and maintaining software quality standards. To achieve a successful and efficient software testing process, the STL works closely with project managers, developers, and stakeholders.

Quality Assurance Lead	Liable for ensuring that all deliverables adhere to the quality requirements outlined in the transition plan. The TPM and the QA Lead collaborate closely to create quality measures and guarantee that all transition tasks are completed to a high standard.
Project Team Members	Accountable for helping, information, and knowledge about the system. To ensure a smooth transfer of knowledge and skills, they collaborate closely with the TPM, developers, and other team members.

Table 22. Transition Roles and Responsibilities

5.11.4. Workforce Transition

The SurveiRams Ticketing System project's transition strategy places a lot of attention on the workforce transfer. A thorough workforce plan must be established and successfully communicated to guarantee a smooth and effective transition.

The Transition Project Manager will work closely with the customer, the existing and new contractors, as well as the transition team to decide on the best strategy for managing the workforce. This may include taking various steps, including hiring new employees or transferring current employees to the new contractor.

In this process, timely and clear communication is essential because it is important to respectfully inform the workforce of any changes. The Transition Project Manager will make sure that all staff members are educated about their substitutes and receive the required support throughout the transition by collaborating closely with BMO, ITRO, and security management.

The employees will also receive all necessary training or retraining to ensure they are fully prepared to provide great services during and after the transition phase. With the ultimate objective of successfully completing the project within the allocated schedule and budget, the workforce transition plan will be subject to continuous assessment and adjustments, as necessary.

5.11.5. Workforce Execution During Transition

During the transition period of the SurveiRams System project, several essential tasks will still need to be completed, which are as follows:

User Training: To inform users of the new system, training materials must be created and distributed. The training sessions would last two weeks and will combine classroom instruction with practical training.

System Testing: This signifies the official deployment of the new system. The team must make sure that every necessary component are in place and working properly before making it available to users. This will require performing final system tests and confirming the accuracy of the data migration.

Documentation of Lessons Learned: Documenting the project-related insights is part of this step. It comprises determining the team's strengths and weaknesses to adjust. The document will be a useful tool for future projects and encourage the use of best practices.

Finalize Project Deliverables: The group oversees updating relevant documents and records to reflect the project's completion. This can entail keeping copies of documents on hand or modifying contracts and agreements with added information.

Formal Acceptance: Getting the customer's formal approval during this phase signifies that the transfer was accomplished. The project team is responsible for making sure that all deliverables have been completed and that the customer is satisfied with the new system.

Archiving Files/Documents: All project-related files and papers will be archived during this time. Contracts, agreements, project plans, and other relevant documents may be included.

Project Closeout Meeting: A meeting with all stakeholders to close out the project is part of the transition's final phase. This meeting is to discuss the project, identify areas for success and improvement, and ensure that unresolved concerns are addressed.

5.11.6. Subcontracts

There are no existing contracts or subcontract agreements related to this project. Therefore, no transition of contracts or related agreements is required.

5.11.7. Property Transition

5.11.7.1. User Accounts and Passwords

The transfer of user accounts and passwords must be covered in the project's transition strategy for the SurveiRams Ticketing System. The following lists the concerns and actions for this specific transitional phase:

User Account Inventory:

To start with, a thorough inventory that details every user account and its corresponding privileges must be made. System administrators, BMO, ITRO, and end users (security employees) are a few examples of internal and external users that should be included in this inventory. It should also indicate which accounts are no longer active or required by the system.

Password Security:

Security must be maintained as the top priority during the transition process, so all user passwords must be reset or disabled. This action protects the system and the data it contains against unwanted access. Users should be informed to change their passwords to a temporary one issued to them before the switch. The system owner should then insist that all users create new, secure passwords during the transfer.

User Database:

The database for all user accounts to be moved or disabled should be part of the transition plan. This table must have information like the login, linked email address, and relevant access rights. It should also specify any special instructions for the transition, whether the account will be moved or disabled.

In summary, the transition of user accounts and passwords is a critical aspect of the property transition plan for the SurveiRams Ticketing System project. By implementing a comprehensive account inventory, prioritizing password security, establishing clear procedures for account transition and disablement, and providing a user account table, a seamless and secure transition can be achieved.

5.11.8. Knowledge Transfer

Documentation/Manuals:

- APC management, BMO, ITRO, and security staff will receive thorough documentation and manuals from the project team and senior developer.

- To improve APC management's knowledge of the system's operation, the documentation will include a project overview, system architecture, functional requirements, technical specifications, and other relevant documents.

- The guides will include thorough, step-by-step guidance on how to carry out system-related tasks.

Training:

- To achieve a complete understanding of the system and its operations, APC management will receive individualized training from the project team and senior developer.

- APC management will have access to online training materials and tools for the system's continued knowledge and skill growth.

- Formal classes might not be suitable given the busy setting; thus, APC management will oversee informing BMO, ITRO, and security people.

To guarantee successful knowledge transfer and quick resolution of any queries or difficulties, regular check-ins and meetings will be organized between the project team, senior developer, and APC management as part of the knowledge transfer plan. Any system updates or modifications will also be recorded and communicated to APC management so they have access to the most latest information.

5.11.9. Handover and Acceptance

Upon completion of the implementation phase and the completion of all required documentation and deliverables, the handover and acceptance procedure will begin. The project team will then schedule an official meeting with the project sponsor and other important stakeholders to discuss the transition plan and confirm that all requirements have been met.

The project team will present the finalized transition plan, including all necessary paperwork and deliverables, to the project sponsor and relevant stakeholders during the handover meeting. We will carefully review the information provided and have a discussion to address any questions or concerns that may still be present.

The project sponsor and other interested parties will sign the formal acceptance document as evidence of the successful completion of the handover once all issues have been resolved. The stakeholders who have examined and accepted the contents will sign this acceptance form, which will include a checklist of all required deliverables and paperwork.

The handover and acceptance section will also describe how to address any unresolved problems or difficulties that may surface after the handover. This can entail adhering to a formal dispute resolution procedure or putting corrective measures in place to address found flaws.

Overall, the transition out plan's handover and acceptance section will provide a thorough and precise roadmap for carrying out the handover process, guaranteeing that all parties will be pleased with the results.

6. Sponsor Acceptance

This project acceptance document establishes formal acceptance of all the deliverables for the SurveiRams System. The SurveiRams System has met all the acceptance criteria as defined in the requirements document and project scope statement.

Approved by the Project Sponsors:

Mr. Jojo F. Castillo   Mr. Jose Manuel Garcia
Executive Director, Technical Services   Campus Architect

Date: Date:

7. List of Tables

8. List of Figures

9. Appendices

9.1 Appendix A: Project Timeline

WBS Code	Element Name	Start Date	End Date	Total days
1	**SurveiRams System**	**11-Apr-23**	**12-Aug-24**	**344**
1.1	**Initiation**	**11-Apr-23**	**12-May-23**	**24**
1.1.1	Create a Business Case	11-Apr-23	24-Apr-23	10
1.1.2	Conduct a Feasibility Study	25-Apr-23	2-May-23	6
1.1.3	Project Charter	3-May-23	5-May-23	3
1.1.4	Identify Stakeholders	8-May-23	10-May-23	3
1.1.5	Final Review	11-May-23	12-May-23	2
1.2	**Develop a Project Plan**	**15-May-23**	**12-Sep-23**	**86**
1.2.1	Project Description	15-May-23	16-May-23	2
1.2.2	Cost Management Plan	17-May-23	30-May-23	10
1.2.3	Schedule Management Plan	31-May-23	8-Jun-23	7
1.2.4	Scope Management Plan	9-Jun-23	20-Jun-23	7
1.2.5	Change Management Plan	21-Jun-23	27-Jun-23	5
1.2.6	Communications Mangement Plan	28-Jun-23	30-Jun-23	3
1.2.7	Risk Management Plan	3-Jul-23	14-Jul-23	10
1.2.8	Quality Management Plan	17-Jul-23	21-Jul-23	5
1.2.9	Procurement Management Plan	24-Jul-23	28-Jul-23	5
1.2.10	Human Resource Plan	31-Jul-23	8-Aug-23	7
1.2.11	Implementation Plan	9-Aug-23	22-Aug-23	10
1.2.12	Work Breakdown Structure	23-Aug-23	5-Sep-23	10
1.2.13	Consolidated Management Plan	6-Sep-23	12-Sep-23	5
1.3	**Analysis**	**13-Sep-23**	**10-Oct-23**	**20**
1.3.1	Cost Benefit Analysis	13-Sep-23	26-Sep-23	10
1.3.2	Project Risk Analysis	27-Sep-23	10-Oct-23	10
1.4	**Design**	**11-Oct-23**	**1-Apr-24**	**115**
1.4.1	Process Design	11-Oct-23	7-Nov-23	20
1.4.2	User Interface	9-Nov-23	1-Apr-24	95
1.4.2.1	Create User Authentication	9-Nov-23	5-Dec-23	20
1.4.2.2	Create Homepage	6-Dec-23	12-Dec-23	5
1.4.2.3	Create User Management Page	13-Dec-23	19-Dec-23	5
1.4.2.4	Create Profile Page	2-Jan-24	10-Jan-24	7
1.4.2.5	Create Incident Report Page	11-Jan-24	24-Jan-24	10
1.4.2.6	Create Log Details Page	25-Jan-24	13-Feb-24	14
1.4.2.7	Generate Analytics Insights Page	14-Feb-24	12-Mar-24	20

1.4.2.8	Compile into application for Android, IOS, Windows and Mac	13-Mar-24	1-Apr-24	14
1.5	**Testing**	**2-Apr-24**	**25-Apr-24**	**18**
1.5.1	System Test	2-Apr-24	5-Apr-24	4
1.5.2	User Acceptance Test	8-Apr-24	16-Apr-24	7
1.5.3	Unit and Integration Testing	17-Apr-24	25-Apr-24	7
1.6	**Implementation**	**18-Apr-24**	**26-Jun-24**	**48**
1.6.1	Define Key Variables	18-Apr-24	26-Apr-24	7
1.6.2	Determine Roles	29-Apr-24	3-May-24	5
1.6.3	Determine Responsibilities	6-May-24	13-May-24	5
1.6.4	Delegate the Work	14-May-24	31-May-24	14
1.6.5	Monitor Progress	3-Jun-24	12-Jun-24	7
1.6.6	Take Corrective Action	13-Jun-24	26-Jun-24	10
1.7	**Close Project**	**27-Jun-24**	**12-Aug-24**	**33**
1.7.1	Finalize Project Deliverables	27-Jun-24	3-Jul-24	5
1.7.2	Confirm Project Completion	4-Jul-24	12-Jul-24	7
1.7.3	Review All Contracts	15-Jul-24	23-Jul-24	7
1.7.4	Review Documentation	24-Jul-24	12-Aug-24	14

9.2 Appendix B: Schedule Change Request Form

KAYVI Byte
Project Development Schedule Change Form

Project Name: [Enter Project Name]
Requested By: [Enter Name of Requestee]
Project Manager: [Enter Project Manager Name]
Original Project Start Date: [Enter Original Start Date]
Original Project End Date: [Enter Original End Date]

Requested Change (Choose one):

For Deliverable Deadline Changes:

Original Deliverable End Date: [Enter Original End Date]
Requested New Deliverable End Date: [Enter New End Date]
Expected New Project End Date: [Enter New End Date]
Reason for Schedule Change: [Provide a brief explanation of the reason for the schedule change]

For Entire Project Timeline Changes:

Requested New Project Start Date: [Enter New Start Date]
Requested New Project End Date: [Enter New End Date]
Reason for Schedule Change: [Provide a brief explanation of the reason for the schedule change]

Impact Assessment

Please assess the potential impact of the schedule change on the following project aspects:

1. Deliverables and Milestones: [Describe how the change in schedule will affect the project deliverables and milestones]
2. Resources: [Explain any changes in resource allocation or availability required to accommodate the new schedule]
3. Budget: [Discuss any potential budgetary implications resulting from the schedule change]
4. Dependencies: [Identify any dependencies or interrelated tasks that may be affected by the schedule change]
5. Risks: [Highlight any new risks or changes to existing risks as a result of the schedule change]
6. Stakeholders: [Consider the impact on project stakeholders, communication plans, or any necessary adjustments]

Approval:

I understand that any changes to the project schedule may have broader implications and will be subject to approval by the relevant stakeholders. By submitting this form, I confirm that I have reviewed the requested schedule change and assessed its potential impact on the project.

Project Manager's Name: **Ian Christopher Onrubia**

Project Manager's Signature: _____

Date: [Enter Date]

9.3 Appendix C: Risk Incident Report Template

Owner	
Risk ID	
Actions Taken	
Budget Used	
Status	

9.4 Appendix D: Risk Mitigation Request Form

Risk Details:

Owner	
Risk ID	
Incident Description	
Cause	
Mitigation Plan	

Resource Request Details:

Item	Quantity	Cost
TOTAL		