PROJECT MANAGEMENT PLAN
RAMS E-CAF:
A WEB-BASED CAFETERIA MANAGEMENT SYSTEM
FOR THE
ASIA PACIFIC COLLEGE

ASIA PACIFIC COLLEGE CAFETERIA
HUMABON 3
MAKATI CITY, KALAKHANG MAYNILA

JUNE 2023

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1. Company Profile

Registered Name:	Asia Pacific College Cafeteria
Company Logo:	
Address:	HUMABON 3 MAKATI CITY, KALAKHANG MAYNILA
Line of Business:	Food Cafeteria
Type of Customers:	APC Community
Client	Ms. Bernadette Sison

Table 1—1: High-level Company Information

Asia Pacific College (APC) is a private tertiary education institution in Makati, Metro Manila, Philippines. It was established in 1991 as a non-profit joint venture between IBM Philippines and the SM Foundation. Its program is focused on information technology in consortium with the National University.

The Commission on Higher Education certifies the college as one of the four Centers of Excellence in IT Education in the Philippines.
APC offers the following schools:

- Senior High School
- School of Computing and Information Technologies
- School of Engineering
- School of Management
- School of Multimedia and Arts
- Graduate School

Project: Rams E-Caf: Cafeteria Management System

Rams E-Caf is an innovative IT solution developed by Asia Pacific College (APC) to address the challenges faced by students, staff, and food concessionaires in the school cafeteria. With the implementation of face-to-face and hybrid classes, time management becomes crucial, and waiting in line for food becomes a luxury students can no longer afford. Rams E-Caf aims to save time and promote social distancing by providing an online ordering platform exclusively for the APC community.

The project recognizes the issues of overcrowding and long waiting times in the cafeteria, which have been exacerbated by the COVID-19 pandemic. By adhering to the social distancing guidelines set by the IATF, Rams E-Caf seeks to enhance the ordering and meal delivery service while reducing stress for food staff. The project focuses on an IT solution, leveraging technology to improve the fulfillment process and alleviate the inefficiencies faced by both customers and food concessionaires.

The key objectives of the project include reducing waiting time to a minute or less, providing advance notifications of daily or weekly menus, ensuring efficient order processing within 10 minutes or less, and reducing cafeteria queues by 50%. These objectives aim to enhance convenience, streamline operations, and comply with social distancing guidelines.

The vision, mission, and values of Asia Pacific College:

Vision:

- Asia Pacific College envisions itself to be the preferred Higher Education Institution bridging academe and industry with its programs founded on the concepts and applications of IT, guided by the core values of integrity, industry and innovation that works.

Mission:

- Asia Pacific College, powered by education and industry professionals as faculty and a balanced curriculum, aims to provide business and the information and communications technology industry in the Philippines and in the global community lifelong learning graduates who are anchored on the principles of integrity and professionalism.

Values:

- APC aims to produce graduates with strong sense of industry or hard work, integrity or being honest and having strong moral / ethical principles, and innovation or constantly introducing new and creative methods.

2. Business Case

2.1. Problem Definition

2.1.1. Problem Statement

Rams E-Caf, the business problem identified was the inefficient manual process of the cafeteria's daily operations. The cafeteria was using a traditional paper-based system for order-taking, and inventory management. This process was time-consuming, and error-prone, and, accident inventory counts, and difficulties in monitoring sales and revenue.

The proposed solution, Rams E-Caf, aimed to address these issues by implementing a web-based cafeteria management system that would streamline the entire process, from order-taking to billing and inventory management.

2.1.2. Organizational Impact

- To automate the cafeteria's daily operations and minimize the manual process by implementing a web-based cafeteria management system.
- To improve the accuracy and efficiency of the order-taking, billing, and inventory management process.
- To provide real-time sales and revenue monitoring capabilities to cafeteria management.
- To reduce operational costs.
- To enhance the customer experience by providing a user-friendly online ordering system.

The proposed system would modify the current organizational processes by substituting the traditional paper-based system with an automated web-based system. This would require the installation of new hardware and software, including computers and servers, as well as the development of a custom software application for the cafeteria management system.

The new system would also create new roles, including system administrators, software developers, and technical support staff. Existing roles, such as cafeteria staff, would also change as they adapt to the new system and receive training on its use. Overall, the objective is to streamline and optimize the cafeteria's operations, resulting in improved efficiency and customer satisfaction.

2.1.3. Technology Migration

Rams E-Caf is a web-based cafeteria management system that will be accessed by a web browser and housed on a server. A team of IT professionals will most likely install and configure the system, working closely with cafeteria employees to ensure that the system is set up appropriately and fulfills their specific needs. The implementation process will almost certainly include numerous stages, such as system testing, user training, and data migration.

2.2. Project Overview

2.2.1. Project Description

The Rams E-Caf project aims to provide a solution to the problem of long waiting times in the APC cafeteria. With the implementation of face-to-face and hybrid classes, students and staff will have less time to spare, making it crucial to manage their time effectively. Rams E-Caf is an online ordering platform exclusively for the APC community, which allows users to order their food ahead of time and pick it up at a designated time.

2.2.2. Goals and Objectives

The primary goal of the Rams E-Caf project is to improve the service time of food concessionaires, benefiting the APC community. The project's specific objectives include developing a web application with key features such as User Login, Menu for the day, Website Reports, Order and Payment System, Customer Feedback system, Dashboard for orders, and Edit Food Menu. The web application will be designed to enable food concessionaires to prepare food in advance, reduce wait times for customers, and improve overall customer experience.

2.2.3. Project Performance

The success of the Rams E-Caf project will be measured based on several performance criteria, including the reduction in wait times for customers, the adoption rate of the new ordering system, and customer feedback regarding the ordering system's ease of use and overall satisfaction.

2.2.4. Project Assumptions

The preliminary assumptions for the Rams E-Caf project include the assumption that the new ordering system will be adopted by the APC community, and that food concessionaires and admins will maintain the website to ensure its sustainability.

2.2.5. Project Constraints

The project is subject to time, budget, resource, and regulatory constraints. These constraints will need to be carefully managed throughout the project to ensure that the project is completed on time, within budget, and in compliance with all applicable laws and regulations.

2.2.6. Major Project Milestones

The given completion dates listed for the major project milestones are assumptions and not final, and they are subject to change prior to the stakeholders and as the project progression. All the said dates are proprietary to completion during the SOFTDEV course that the team will undergo for the upcoming academic year.

Summary Milestone Schedule – List key project milestones relative to project start.	
Project Milestone	**Target Date (mm/dd/yyyy)**
Project Start	04/06/2022
Complete Solution Design	07/10/2023
Acquire Hardware and Software	09/11/2023
Complete Solution Simulation with New Hardware/Software	09/12/2023
Complete Solution Simulation and Testing	09/20/2023
Deploy Solution	11/10/2023
Project Complete	11/20/2023

2.3. Strategic Alignment

As the team analyzed and presented the problems and needs of the food concessionaires –the food concessionaires' representatives, Ms. Bernadette Sison acknowledged the team's roles and responsibilities as it is aligned with their strategic plans to somehow manage the crowd in the Asia Pacific College Cafeteria during peak hours.

Expectations are set by the organization which aligns with their goals, while the developers of the

Rams E-Caf are expected to follow through. All questions during the design and development stage will be answered by Ms. Bernadette Sison and provide further information that will guide the developers to produce an output aligned with the organization's goals.

2.4. Cost and Benefit Analysis

The following table presents a cost-benefit analysis of the Rams E-Caf project, which includes the costs of the project components and the associated benefits.

Project Component	Component Cost	Benefit	Price/Benefit
Hardware (Microsoft Surface Pro 3, 8GB Intel Core i5-4300U)	PHP 32.354.00~	Improved Efficiency and Productivity (+PHP 15,000.00~)	46.15%~
Amazon Website Hosting	PHP 894.9 per month	Increased Online Visibility and Sales (+PHP 24,000.00~)	33.33%~
Payment Gateway	PHP 0.00 (Registration fee) & 2.5% per transaction fee (GCash)	Increased Sales and Customer Convenience (+PHP 10,000.00~)	
Total	PHP 33,248.9		79.48%

In this cost benefit analysis, the costs of the project components for Rams E-Caf are outlined. The hardware costs PHP 32,354.00, the Amazon Website Hosting costs PHP 894.9 per month, and there are no costs for the Payment Gateway, but there is a benefit of faster and more convenient payment processing. The hardware component will lead to improved productivity and speed. The Amazon Website Hosting component will increase Rams E-Caf's online presence, potentially leading to more customers and revenue. Overall, the project is expected to lead to improved business performance.

3. Project Charter

3.1. Project Purpose/Justification

3.1.1. Business Need

The business need/case for the project is primarily driven by organizational needs and customer requests. The APC cafeteria has been experiencing long wait times and crowded spaces, which has led to a decline in customer satisfaction and an inefficient use of manpower by the food concessionaires. In addition, with the implementation of social distancing guidelines due to

COVID-19, the need for a solution that can aid in the facilitation of social distancing while still providing efficient meal delivery has become more pressing.

The intended effects of the business case are cost savings, process improvement, and customer satisfaction. By implementing an IT solution, the project can run the ordering and meal services smoothly, reducing wait times for customers to a minute or less and effectively managing the serving of orders. This would result in a more efficient use of manpower by the food concessionaires and a reduction in the stress experienced during peak hours. Furthermore, the solution can notify customers ahead of time on the concessionaires' menus per day or week, allowing them to make more informed choices and potentially increasing customer satisfaction.

Technological advance is also a factor driving the business need/case. With the increasing availability of web-based applications and online ordering systems, the implementation of an IT solution for the APC cafeteria is becoming more feasible and practical. Additionally, the solution can help the cafeteria keep up with the changing technological landscape, providing a more modern and convenient ordering experience for customers.

Another key factor driving the business need/case is the legal requirement for compliance with social distancing guidelines. The implementation of an IT solution can aid in the facilitation of social distancing guidelines set by the IATF. The project can also have ecological impacts by potentially reducing food waste and promoting sustainable practices in the cafeteria.

Overall, the logic for the business need/case is driven by a combination of organizational needs, customer requests. By addressing these factors, the project can have significant positive effects on cost savings, process improvement, and customer satisfaction, while also promoting sustainable and socially responsible practices in the cafeteria.

3.1.2. Business Objectives

The following are the business objectives of the project:

- To create an IT solution that enhances the ordering and meal delivery service in the APC cafeteria, reducing waiting times and aiding distancing.
- To improve the overall dining experience at APC by effectively managing the serving of orders and reducing customer waiting time to a minute or less.
- To notify customers ahead of time on the concessionaire's menus per week.
- To reduce the long queues in the cafeteria by 50%.
- To benefit both customers and food concessionaires by providing convenience, reducing over-crowding, and stress for food staff during peak hours.
- To comply with the social distancing guidelines set by the IATF.
- To promote sustainable and socially responsible practices in the cafeteria.

3.2. Project Description

The Rams E-Caf project aims to develop and implement a web-based cafeteria management system for the Rams organization. The system will provide a comprehensive and user-friendly platform to streamline the cafeteria operations, enhance efficiency, and improve the overall dining experience for employees and customers. It will include features such as online ordering, menu management, payment processing, inventory tracking, and reporting. The Rams E-Caf project will leverage modern technologies and innovative solutions to create a seamless and convenient cafeteria management solution. By automating processes, reducing manual tasks, and enhancing customer satisfaction, the project will contribute to an optimized cafeteria operation and support the organization's commitment to providing high-quality services to its stakeholder.

3.2.1. Project Objectives

The objective of the Rams E-Caf project is to develop and implement a web-based cafeteria management system that aims to revolutionize the cafeteria operations within the organization. This project seeks to enhance operational efficiency by automating processes, improve the overall customer experience by providing a user-friendly interface, optimize resource utilization through effective inventory management, increase transparency and accountability through real-time reporting, enable data-driven decision making by leveraging analytics, and promote sustainability by adopting greener practices. The ultimate goal is to create a modern and efficient cafeteria management system that aligns with the organization's objectives, enhances productivity, and delivers a seamless and enjoyable dining experience for employees and customers.

3.2.2. Success Criteria

The success criteria for the Rams E-Caf project are defined based on the following key factors:

1. System Performance and Reliability: The cafeteria management system should demonstrate high performance and reliability, ensuring smooth and uninterrupted operations during peak hours and handling a significant volume of transactions without delays or system failures.
2. User Adoption and Satisfaction: The success of the project relies on the widespread adoption of the Rams E-Caf system by employees and customers. It is crucial to achieve high user satisfaction through an intuitive and user-friendly interface, seamless ordering and payment processes, and positive feedback from users regarding the system's convenience and efficiency.
3. Operational Efficiency and Cost Savings: The Rams E-Caf system should streamline cafeteria operations, optimizing resource utilization, reducing manual processes, and minimizing errors or discrepancies. The success criteria include achieving measurable improvements in operational efficiency, such as faster order processing, reduced waiting times, improved inventory management, and cost savings in terms of labor and supplies.
4. Enhanced Reporting and Analytics: The project's success relies on the implementation of robust reporting and analytics capabilities within the system. The success criteria include generating

real-time and accurate reports on sales, inventory levels, popular menu items, and customer preferences. These reports should enable data-driven decision making, allowing cafeteria managers to make informed choices to improve offerings, optimize stock levels, and enhance overall performance.

5. Integration and Scalability: The success of the Rams E-Caf project also depends on its ability to integrate seamlessly with existing systems and infrastructure within the organization. It should support scalability to accommodate future growth and expanding user needs, enabling easy addition of new cafeteria locations or functionalities without major disruptions.
6. Regulatory Compliance and Security: The success criteria encompass ensuring compliance with relevant regulatory standards, such as data protection and privacy regulations. The system should provide robust security measures to protect user data and financial transactions, ensuring that sensitive information remains confidential and secure.

By meeting these success criteria, the Rams E-Caf project will achieve its objectives of revolutionizing cafeteria management, enhancing user experience, improving operational efficiency, and delivering long-term value to the organization.

3.2.3. Requirements

To achieve success for the Rams E-Caf project, the system should fulfill the following key requirements:

- User-Friendly Interface: The system should have an intuitive and user-friendly interface, making it easy for both employees and customers to navigate, place orders, make payments, and access relevant information.
- Menu Management: The system should provide a comprehensive menu management feature that allows cafeteria administrators to easily create, update, and customize menus based on offerings, pricing, and availability.
- Order Management: The system should support efficient order management, including order placement, order tracking, and order modification. It should provide real-time notifications to users regarding the status of their orders.
- Payment Processing: The system should integrate secure payment processing capabilities, allowing users to make payments through various methods such as cash, credit/debit cards, mobile wallets, or other electronic payment options.
- Inventory Management: The system should enable effective inventory management, allowing administrators to track ingredient availability, monitor stock levels, and generate alerts when items need to be restocked. It should also support automated reordering processes to ensure continuous availability of menu items.
- Reporting and Analytics: The system should have robust reporting and analytics capabilities, providing insights into sales data, popular menu items, customer preferences, and other relevant metrics. It should generate comprehensive reports and visualizations to assist administrators in making data-driven decisions.
- Integration with Existing Systems: The system should be capable of integrating with other relevant systems within the organization, such as accounting software, HR systems, or inventory

management tools, to streamline data sharing and enhance operational efficiency.

- Security and Privacy: The system should prioritize data security and privacy, implementing appropriate measures to protect user information, financial transactions, and other sensitive data. It should comply with relevant data protection regulations and employ encryption, access controls, and secure authentication methods.
- Scalability and Performance: The system should be designed to handle increasing user loads and accommodate future growth. It should demonstrate high performance, responsiveness, and scalability to ensure a smooth user experience even during peak usage periods.
- Mobile Accessibility: The system should have mobile accessibility, allowing users to access and interact with the Rams E-Caf platform through mobile devices, such as smartphones or tablets, ensuring convenience and flexibility.

By fulfilling these system requirements, the Rams E-Caf project can effectively meet user needs, optimize cafeteria operations, and contribute to the overall success of the project.

3.2.4. Constraints

The project is subject to time, budget, resource, and regulatory constraints. These constraints will need to be carefully managed throughout the project to ensure that the project is completed on time, within budget, and in compliance with all applicable laws and regulations.

3.2.5. Assumptions

The following assumptions are made for the transition approach of Rams E-Caf:

A. The **Rams E-Caf: A Web-Based Cafeteria Management System** will be available onsite or via online meetings to actively participate in the transition process and receive knowledge transfer from the project team.

B. The project team will provide all necessary documentation, training materials, and instruction manuals to facilitate a smooth knowledge transfer to the **RAMS E-CAF** and new team members.

C. Asia Pacific college (or the appropriate organization) will provide all necessary equipment and software licenses required for the **Coderist team** to support the Rams E-Caf system.

D. The **Coderist team** will possess the requisite skills and knowledge to effectively support and maintain the Rams E-Caf system after the completion of the transition process.

3.2.6. Preliminary Scope Statement

The project's goal is to address the issues of long wait times, inefficient use of manpower, and the

implementation of social distancing guidelines by the IATF in the APC cafeteria with the development of an alternative online ordering system. The project will deliver a functional web application that meets the requirements of the stakeholders and improves the overall cafeteria experience for the APC community which consists of students, staff, and faculty members. The successful completion of the project will be measured by user satisfaction, decreased wait times, increased efficiency for the cafeteria's food concessionaires, and adherence to social distancing guidelines, as well as avoid the long queues with also achieving to process food with a timely manner.

The users will only focus on the APC community and will not include non-APC community and non-APC concessionaires. The project will not include creating a native mobile application hence its infrastructure will be web-based and will be available through most browsers such as Microsoft Edge, Google Chrome, and Firefox. This will only be accessible by having an internet connection hence the project will only focus on this and will exclude problems of having no internet connection. Additionally, the focus solution is to digitalize the ordering system of APC cafeteria and will not interfere changing the lunch time or break time of the APC community, as well as all other solutions.

Furthermore, the project will be supported by the APC by providing monitors or tablets depending on the chosen devices by the concessionaires thus there is no technology constraint. However, the project is subject to budget constraints, as it depends on approval from the project sponsor. Time is also a constraint, as the project must be completed by the end of the term and deliverables must be completed on schedule. The project must deliver a fully functional web application that meets the requirements of the stakeholders and is accepted by them as complete within the available resources and timeline.

The successful completion of the project is based on shared assumptions between the project team and stakeholders. It is assumed that both parties understand the requirements and objectives of the project, and the project team has the technical capability and access to resources to develop and implement the online web application and it is assumed that both parties have agreed on the scope of the project. Moreover, the project team and stakeholders are committed to complying with all relevant laws, rules and regulations, guidelines, including those related to data privacy and security. Consequently, the importance of social distancing and other safety measures to prevent the spreading of COVID-19 is understood, and the implementation of the web application is assumed to aid these measures.

3.3. Risks

The Rams E-Caf project encompasses various high-level risks that have been identified by the project team. The project manager will employ appropriate risk mitigation and avoidance strategies to minimize the likelihood of these risks materializing:

- The Rams E-Caf will not be accessed by the customers if the customers have no internet connection.
- The risk of connection interruption in the middle of payment process done with the use

of payment gateways inside the Rams E-Caf web application.

- The unsynchronized stocks/available food amount displayed in the web application and the physical food stall may cause confusion and conflict.
- Security vulnerabilities: The project may be vulnerable to security breaches or data loss, posing significant risks to the confidentiality, integrity, and availability of sensitive information. Implementing robust security measures and adhering to best practices is crucial to mitigate these risks.
- Human error: There is a risk that human mistakes or errors by project team members could adversely affect project outcomes. Maintaining effective communication, providing adequate training, and implementing quality control measures are essential to minimize the impact of human error.
- Unforeseen circumstances: There is a risk that unforeseen events or circumstances, such as natural disasters or shifts in the market, could arise, and disrupt project activities. Developing contingency plans and maintaining flexibility will help mitigate the potential consequences of these unexpected occurrences.

3.4. Project Key Deliverables

The following key deliverables are expected upon successful completion of the Rams E-Caf project:

1. An Alternative Online Ordering System: A fully functional and user-friendly online ordering system specifically designed for Asia Pacific College, catering to the needs of students, faculty, and staff. The system should provide a seamless and convenient experience for placing and managing orders.
2. Enhanced Efficiency and Convenience: The online ordering system should streamline the ordering process, reducing manual effort and eliminating the need for paper-based transactions. It should enable users to easily browse menus, customize orders, make payments securely, and track the status of their orders in real-time.
3. Integration with Existing Systems: The alternative online ordering system should be seamlessly integrated with other relevant systems used by Asia Pacific College, such as student information systems, inventory management systems, and payment gateways. This integration will ensure accurate and up-to-date information exchange, efficient inventory management, and synchronized financial transactions.
4. Mobile-Friendly Interface: The system should be optimized for mobile devices, allowing users to place orders conveniently using their smartphones or tablets. The mobile interface should provide a responsive design that adapts to different screen sizes and resolutions.
5. Customization and Menu Management: The system should provide an intuitive interface for administrators to manage menus, including adding, removing, and updating food and beverage items. It should allow customization options, such as dietary preferences and special requests, providing a personalized ordering experience for users.
6. Customization and Menu Management: The system should provide an intuitive interface for administrators to manage menus, including adding, removing, and updating food and beverage items. It should allow customization options, such as dietary preferences and special requests, providing a personalized ordering experience for users.
7. User Training: The project should deliver comprehensive training. Training sessions or workshops may also be conducted to facilitate smooth adoption and user satisfaction.
8. Cost Savings and Benefits Report: A report will be prepared detailing the cost savings and benefits achieved through the implementation of the Rams E-Caf project. It will outline the efficiency gains, reduction in manual errors, financial savings, and customer satisfaction improvements resulting from the adoption of the online ordering system.

   These deliverables may be subject to the approval of the project sponsor and any necessary adjustments or refinements based on specific project requirements.

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.

Summary Milestone Schedule – List key project milestones relative to project start.	
Project Milestone	**Target Date (mm/dd/yyyy)**
Project Start	04/06/2022
Complete Solution Design	07/10/2023
Acquire Hardware and Software	09/11/2023
Complete Solution Simulation with New Hardware/Software	09/12/2023
Complete Solution Simulation and Testing	09/20/2023
Deploy Solution	11/10/2023
Project Complete	11/20/2023

Table 3.5—1: Summary Milestone Schedule

3.6. Budget Summary

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

Summary Budget – List component project costs	
Project Component	**Component Cost**
• Hardware (Microsoft Surface Pro 3, 8GB Intel Core i5-4300U)	₱32,354.00~
• Amazon Website Hosting	₱894.9 per month~
• Payment Gateway	₱0.00 (Registration fee) & 2.5% per transaction fee (GCash)
• Electricity Cost	PHP 11.3168 kwh / 3,395.04 per month
• Labor Cost	PHP 60,048
• Development Cost	PHP 54,559
Total	₱151,250.94

Figure 3.6—1: Budget Summary

Price Reference:

- https://aws.amazon.com/ec2/pricing/
- https://www.amazon.com/Microsoft-Sufrace-QL2-00015-i5-4300U-Keyboard/dp/B071VXYBJH
- https://paynamics.biz/
- https://www.asus.com/ph/laptops/for-gaming/tuf-gaming/2021-asus-tuf-dash-f15/

3.7. Project Approval Requirements

The key deliverables for the Rams E-Caf project are the successful implementation of an alternative online ordering system for Asia Pacific College. This system should encompass essential features such as user registration, menu browsing, order placement, payment processing, and order tracking, while integrating seamlessly with existing systems. By meeting all project deliverables and requirements outlined in the project charter, obtaining approval from the Project Sponsor, Ms. Bernadette Sison, and achieving stakeholder satisfaction, the project will be considering a success, marking the successful completion of the Rams E-Caf project.

4. Project Management Approach

The Project Sponsor, along with full authority, will provide the go-signal for executing project plans and approving any necessary changes. The Project Manager will be responsible for overseeing and executing the Rams E-Caf project in alignment with the Project Plan. The project team will consist of skilled individuals from the administrative, product development, and quality assurance groups, who will collaborate to ensure project success.

To initiate the project, the project manager will engage all available resources in comprehensive project planning. Each project management plan and its subsidiary plan will undergo thorough review and approval by the project by the project sponsor to maintain alignment with project objectives. Funding decisions will solely be made by the project sponsor. Any delegation of approval authority to the project manager will be formally documented through a written agreement, signed by both the project sponsor and the project manager, ensuring clear communication and accountability throughout the project lifecycle.

By establishing a robust project management approach, with the Project Sponsor's authoritative role and the Project Manager's diligent execution, the Rams E-Caf project will be effectively managed, leading to its successful completion and achievement of project goals.

5. Project Technical Approach

For the Rams E-Caf project, our technical approach will be grounded in a comprehensive

understanding of the project requirements and constraints. Our team will adopt a systematic and iterative product development methodology, incorporating both structured and agile practices. This approach will enable the team to deliver a robust and user-friendly online ordering system within the specified timeframe, while ensuring the highest standards of quality and meeting the unique needs of Asia Pacific College. The team will leverage our expertise in technology and user experience design to develop a scalable and intuitive platform that streamlines the ordering process and enhances customer satisfaction. Through continuous collaboration, thorough analysis, and efficient implementation, the technical approach will drive the successful development and deployment of Rams E-Caf, enabling seamless online ordering experiences for the college community.

5.1. Product Development Methodology

The The Rams E-Caf project will adopt a comprehensive product development methodology that combines elements of agile and traditional project management frameworks. This hybrid approach will facilitate rapid iterations and continuous feedback from stakeholders, while also ensuring adherence to project timelines and budgetary constraints. The methodology encompasses key phases including project initiation, planning, execution, monitoring and controlling, and closure.

Throughout the product development life cycle, the team will maintain ongoing communication channels with the client to ensure alignment with their requirements and objectives. Emphasizing user experience and design, the technical approach will prioritize the development of an intuitive and user-friendly online ordering system. By leveraging a blend of agile practices and traditional project management methods, the team aims to deliver the Rams E-Caf project on time, within budget, and to the satisfaction of Asia Pacific College and its community.

5.2. Technical Architecture

The Rams E-Caf project will adopt a modern and scalable technical architecture to support its online ordering system. The team will leverage a cloud-based infrastructure, ensuring scalability, security, and performance. Microservices architecture will be employed to facilitate modular and flexible development.

The system will be hosted on a reliable and secure cloud platform, enabling global accessibility. To safeguard against cyber threats and unauthorized access, robust security measures will be implemented. The user interface will be developed using contemporary front-end technologies such as React and Angular, ensuring a responsive and user-friendly experience. Back-end technologies including Node.js, Java, and Python will be utilized to build a resilient and dependable system.

Automated testing and continuous integration and deployment (CI/CD) processes will be integrated to maintain an up-to-date and optimally functioning system. The technical architecture of Rams E-Caf focuses on efficiency, reliability, and security. It adopts a client-server

model where web browsers serve as clients and an application server hosts the server-side components.

The server-side will be developed using Java Enterprise Edition (JEE) and deployed on an Apache Tomcat web server. The architecture will follow a three-tier structure, segregating the presentation, application, and data layers. The presentation layer will comprise HTML, CSS, and JavaScript for creating the user interface. Java Servlets and Java Server Pages (JSPs) will handle the business logic in the application layer. A relational database management system (RDBMS) such as MySQL or Oracle will be employed in the data layer for data storage and management.

To ensure application security, the technical architecture will incorporate measures such as user authentication and authorization, data encryption, secure data transmission, and adherence to secure coding practices. Scalability will be a key consideration, accomplished through load balancers, clustering, and other scalable techniques.

The technical architecture of Rams E-Caf aims to establish a robust, secure, and scalable foundation for the online ordering system, ensuring the successful delivery of the project and meeting the needs of its users.

6. Project Management Plans

6.1. Stakeholders Strategy Management Plan

6.1.1. Introduction

Stakeholders play a critical role in the success of any project. The Stakeholder Management Strategy for Rams E-Caf aims to identify and analyze the project's stakeholders, understand their expectations, and develop appropriate communication and engagement plans to manage their involvement effectively. This strategy will help ensure that stakeholders are engaged, informed, and satisfied with the project's outcomes.

Goals and objectives of the Stakeholder Management Strategy for Rams E-Caf:

1. Identify stakeholders: The first goal of the Stakeholder Management Strategy is to identify all stakeholders involved in the project. This includes internal stakeholders such as project team members and external stakeholders such as customers, suppliers, regulators, and shareholders.

2. Analyze stakeholders: Once stakeholders have been identified, the next step is to analyze their interests, expectations, and influence on the project. This analysis will help identify potential risks and opportunities associated with each stakeholder and develop appropriate engagement plans.

3. Develop engagement plans: Based on the stakeholder analysis, appropriate engagement plans will be developed to ensure that stakeholders are adequately informed and engaged throughout the project's life cycle. The engagement plans will include communication plans, consultation plans, and participation plans.

4. Monitor and control stakeholder engagement: Regular monitoring and control of stakeholder engagement are essential to ensure that stakeholders remain engaged, informed, and satisfied with

the project's outcomes. This goal will involve regular review and update of engagement plans, addressing stakeholder concerns, and managing any changes in stakeholder expectations.

The Stakeholder Management Strategy for Rams E-Caf will be implemented throughout the project's life cycle to ensure that all stakeholders are appropriately engaged and informed. This strategy will help ensure that stakeholders remain supportive of the project, and any potential risks or conflicts are managed effectively.

6.1.2. Identify Stakeholders

The methodology used to identify stakeholders will focus on capturing both the direct and indirect stakeholders, as well as identifying any potential conflicts or competing objectives. The project team will take a proactive approach to stakeholder identification to ensure that all stakeholders are identified and included in the stakeholder management plan.

Once stakeholders are identified, they will be categorized based on their level of interest and influence on the project. This will help prioritize stakeholder engagement efforts and ensure that the appropriate level of communication and involvement is maintained throughout the project lifecycle. Stakeholder categories may include champions, supporters, neutral parties, skeptics, and opponents.

The stakeholder management plan will be reviewed and updated throughout the project lifecycle to ensure that it remains relevant and effective in managing stakeholder engagement. By proactively identifying and managing stakeholders, the project team can anticipate and address potential obstacles, gain stakeholder support, and ultimately increase the chances of project success.

6.1.3. Key Stakeholders

Key Stakeholders and their reasoning for determination in Rams E-Caf Project:

Key Stakeholder	Reasoning for Determination
Customer	Will use the new system to place orders and may be impacted by any changes to the ordering process.
Food Concessionaire	Will use the new system to monitor orders from customers and update and control the menu of their food stall from the system.
Project Sponsor/Client	Provides funding and resources for the project and holds ultimate decision-making authority.

Table 6.1—1: Stakeholder Register/Profile

These key stakeholders have been identified based on their potential impact on the project and their level of influence or interest in the project's success. They will require regular communication and management throughout the project's lifecycle to ensure their needs are met and their feedback is incorporated into the project as necessary.

6.1.4. Stakeholder Analysis

The project team will conduct an analysis of the identified stakeholders to categorize and group them based on their power, influence, and involvement in the project. The analysis will help to determine the level of impact each stakeholder has on the project. Stakeholders will be categorized based on their level of influence and interest in the project. The team will use the following categories to group stakeholders:

High power and high interest: These stakeholders have a high level of interest and influence over the project. They will require regular communication and management throughout the project's lifecycle.

High power and low interest: These stakeholders have a high level of influence but may not have a significant interest in the project. The team will need to keep them informed, but they may not require the same level of communication as the high power and high interest stakeholders.

Low power and high interest: These stakeholders have a high level of interest in the project but may not have significant influence. The team will need to keep them informed and engaged throughout the project.

Low power and low interest: These stakeholders have little interest or influence in the project. They may require minimal communication and management.

To determine the level of impact stakeholders may have on the project, the team will use tools such as a stakeholder matrix or power/interest grid. These tools will help to identify which stakeholders may require more attention and resources to manage. The stakeholder analysis will also consider the potential risks and benefits associated with each stakeholder group. This will help the team to anticipate any conflicts or competing objectives among stakeholders and develop appropriate strategies to manage them.

Overall, the stakeholder analysis will enable the team to better understand the needs and expectations of each stakeholder group and develop an effective stakeholder management plan that addresses their concerns and supports the successful delivery of the project.

6.2. Scope Management Plan

6.2.1. Introduction

The purpose of this Project Scope Management Plan is to define the scope management process for the Rams E-Caf project. The plan identifies the roles and responsibilities for managing the project scope, as well as the processes for collecting requirements, defining scope, creating a work breakdown structure, verifying scope, and controlling scope.

1) Collect Requirements
   - The Rams E-Caf project team will identify and document the requirements necessary to meet all project objectives. The project charter and stakeholder register will be used to identify requirements, and the team will collectively discuss the details associated with meeting each requirement. Interviews and follow-on discussions will be conducted to clarify the requirements,

and they will be documented in sufficient detail to measure them once the project begins the execution phase.

2) Define Scope
   - The Rams E-Caf project team will develop a detailed project/product description that includes deliverables, assumptions, and constraints. This step will establish the framework within which project work must be performed and will be critical to project success.

3) Create WBS
   - The project team will break down project deliverables into progressively smaller and more manageable components, which at the lowest level are called work packages. This hierarchical structure will allow for more simplicity in scheduling, costing, monitoring, and controlling the project.

4) Verify Scope
   - The project team will receive formalized acceptance of all deliverables with the sponsor and/or customer in the verify scope process.

5) Control Scope

The project team will monitor and control the project/product scope, as well as manage any changes in the scope baseline. Changes may be necessary to the project scope but must be controlled and integrated to prevent scope creep.

6.2.2.Scope Management Approach

Authority and responsibility for the scope management will be helped by the project manager, Corneliani Jon Melo, who will work and communicate closely with the project sponsor, Ms. Bernadette Sison, and the stakeholders such as the food concessionaires.

The scope of the project will be defined in the Work Breakdown Structure (WBS), WBS Dictionary and in the Statement of Work (SOW). These documents outline the project deliverables, tasks, and requirements which will be reviewed and approved by the project sponsor and other stakeholders before any work in the development side begins.

The scope of the project will be measured and verified with quality checklists and regular team meetings with the project sponsor. Any deviation from the scope will be addressed during the meeting and through the scope change process.

The scope change process for the Rams E-Caf project will include the submission of a scope change request by the project manager with the final approval being granted by the project sponsor. Every detail included in the scope change request should be reviewed and evaluated to ensure that they align with the project goals and objectives but at the same time, does not negatively impact the project schedule and/or budget.

The final project deliverables will be accepted and approved by the project sponsor and the key stakeholders. The project manager on the other hand will be responsible for ensuring that all project requirements have

been met. The project will be deemed successful once all of the deliverables have been accepted and any issues have been resolved.

6.2.3.Roles and Responsibilities

The content above outlines the roles and responsibilities of the key individuals involved in the Rams E-Caf project. Each role has specific responsibilities and is essential to the successful completion of the project. Understanding the roles and responsibilities of each team member is crucial to ensure effective communication and collaboration throughout the project's life cycle. By defining the roles and responsibilities, the project manager can set expectations, delegate tasks, and manage resources efficiently.

Role	Responsibility
Project Manager – Corneliani Melo	The project manager is responsible for leading and managing the project team to achieve the project objectives within the constraints of time, budget, and scope.
Full Stack Developer – Jamir Sia	The responsibility of a full stack developer is to write, test, and maintain code that meets the project's requirements and is of high quality.
UI/UX Designer– Nathan Allen Sinaguinan	Responsible for creating intuitive and visually appealing interfaces for digital products that meet user needs and business objectives.
QA Tester – Isiah Jade Tutor and Joshua Cudal	The responsibility of a QA tester for the Rams E-Caf project is to ensure the quality and reliability of the web-based cafeteria management system by developing comprehensive test plans, creating detailed test cases, executing tests to validate system functionality, usability, and performance, identifying and documenting defects, collaborating with the development team to resolve issues, and providing feedback to improve the overall quality of the software.
Stakeholders – Customers, Food Concessionaires, Client	Responsible for providing input, feedback, and making critical decisions related to the project to ensure its success.

6.2.4.Scope Definition

The scope definition for the Rams E-Caf project was developed after the requirements were identified and defined during the requirements definition process. Three documents were created during this process, namely Project Charter, Business Case, and a Stakeholder Management Plan. These documents were used as

references when defining the project's scope.

The scope definition process involved developing a detailed description of the project and its deliverables. The Rams E-Caf project aims to create a fully functional e-commerce website for Rams Cafe that will allow customers to purchase food and beverage items online. The deliverables of the project include a functional website, a payment gateway for online transactions, and a user-friendly interface.

To define the project's scope, various tools and techniques were used, such as expert judgment and product analysis. Expert judgment was used to gather inputs from industry experts and stakeholders on the project's requirements and deliverables. Product analysis was done to understand the market trends and competition to ensure that the project meets the customers' demands.

6.2.5. Project Scope Statement

The project's goal is to address the issues of long wait times, inefficient use of manpower, and the implementation of social distancing guidelines by the IATF in the APC cafeteria with the development of an alternative online ordering system. The project will deliver a functional web application that meets the requirements of the stakeholders and improves the overall cafeteria experience for the APC community which consists of students, staff, and faculty members. The successful completion of the project will be measured by user satisfaction, decreased wait times, increased efficiency for the cafeteria's food concessionaires, and adherence to social distancing guidelines, as well as avoid the long queues with also achieving to process food with a timely manner.

The users will only focus on the APC community and will not include non-APC community and non-APC concessionaires. The project will not include creating a native mobile application hence its infrastructure will be web-based and will be available through most browsers such as Microsoft Edge, Google Chrome, and Firefox. This will only be accessible by having an internet connection hence the project will only focus on this and will exclude problems of having no internet connection. Additionally, the focus solution is to digitalize the ordering system of APC cafeteria and will not interfere changing the lunch time or break time of the APC community, as well as all other solutions.

Furthermore, the project will be supported by the APC by providing monitors or tablets depending on the chosen devices by the concessionaires thus there is no technology constraint. However, the project is subject to budget constraints, as it depends on approval from the project sponsor. Time is also a constraint, as the project must be completed by the end of the term and deliverables must be completed on schedule. The project must deliver a fully functional web application that meets the requirements of the stakeholders and is accepted by them as complete within the available resources and timeline.

The successful completion of the project is based on shared assumptions between the project team and stakeholders. It is assumed that both parties understand the requirements and objectives of the project, and the project team has the technical capability and access to resources to develop and implement the online web application and it is assumed that both parties have agreed on the scope of the project. Moreover, the project team and stakeholders are committed to complying with all relevant laws, rules and regulations, guidelines, including those related to data privacy and security. Consequently, the importance of social

distancing and other safety measures to prevent the spreading of COVID-19 is understood, and the implementation of the web application is assumed to aid these measures.

6.2.6. Work Breakdown Structure

Scope management is a critical aspect of project management that involves defining, documenting, and controlling the project's boundaries. One of the essential tools for effective scope management is the Work Breakdown Structure (WBS), which is used to break down the project scope into smaller, manageable components. The WBS is then used to create the WBS Dictionary, which provides detailed information on the work packages, activities, and tasks required to complete each component. In this section, we will discuss how the project scope for Rams E-Caf will be subdivided into smaller deliverables in the WBS and WBS Dictionary and how these components will be managed during the project's life cycle.

Tasks

1. Rams E-Caf, Cafeteria Management System
   - 1.1 Initiation
     - 1.1.1 Creating Project Team
     - 1.1.2 Brainstorming
     - 1.1.3 Search for Client
     - 1.1.4 Draft of Proposal
     - 1.1.5 Deliverable: Project Proposal
     - 1.1.6 Approval of Project Draft
     - 1.1.7 Revision of Project Proposal
     - 1.1.8 Project Adviser Request
     - 1.1.9 Final Presentation
     - 1.1.10 Milestone: Project Proposal Approval
   - 1.2 Planning
     - 1.2.1 Design Thinking Stage Empathize
     - 1.2.2 Design Thinking Stage Define
     - 1.2.3 Design Thinking Stage Ideate
     - 1.2.4 Design Thinking Stage Prototype
     - 1.2.5 Design Thinking Stage Test
     - 1.2.6 Draft of Data Flow Diagram (DFD)
     - 1.2.7 Draft of Entity Relationship Diagram (ERD)
     - 1.2.8 Draft of Use Case Diagram
     - 1.2.9 Project Presentation
   - 1.3 Execution
     - 1.3.1 Revision of DFD

1.3.2 Revision of ERD
1.3.3 Revision of Use Case Diagram
1.3.4 Milestone: Website Prototype
1.3.5 Adviser Meeting 1
1.3.6 Face to Face Client Meeting
1.3.7 Midterm Presentation
1.3.8 Project Revision
1.3.9 Quality Control of System Rams E-Caf
1.3.10 Development of Manage Accounts Function
1.3.11 Development of Select Vendor Function
1.3.12 Development of Manage Profile Function
1.3.13 Development of Manage Order Function
1.3.14 Development of Manage Reports Function
1.3.15 Development of Manage Items Function
1.3.16 Development of View Feedbacks Function
1.3.17 QA Testing of System Rams E-Caf
1.3.18 Revision of Project Development base on Testing
1.3.19 Deliverable: Working Web Application
1.3.20 Adviser Meeting 2
1.3.21 Finals Defense
1.3.22 Milestone: Rams E-Caf Website

1.4 Documentation

1.4.1 Create Project Charter
1.4.2 Create Stakeholder Management Strategy
1.4.3 Create Business Case
1.4.4 Deliverable: Submit Project Charter, Stakeholder Management Strategy, and Business Case
1.4.5 Project Sponsor Reviews Documents
1.4.6 Milestone: Documents Signed/Approved
1.4.7 Deliverable: Submit Scope Management Plan, Cost Management Plan, Time Management Plan, Work Breakdown Structure, Work Packages Based
1.4.8 Project Sponsor Reviews Documents
1.4.9 Milestone: Documents Signed/Approved
1.4.10 Deliverable: Submit Communications Management Plan, Implementation Management Plan, Risk Management Plan, Change Management Plan, Procurement Management Plan, Quality Management Plan
1.4.11 Project Sponsor Reviews Documents
1.4.12 Milestone: Documents Signed/Approved
1.4.13 Project Defense

1.5 Deployment
- 1.5.1 Acquire Hardware Requirements
- 1.5.2 System Testing
- 1.5.3 Project Deployment
- 1.5.4 Project Hand out

1.6 Closure
- 1.6.1 Audit Procurement
- 1.6.2 Document Lessons Learned
- 1.6.3 Update Files/Records
- 1.6.4 Gain Formal Acceptance
- 1.6.5 Archive Files/Documents

6.2.7.Scope Verification

Scope verification is a critical process in project management that ensures that all the deliverables of the project are in line with the scope statement. This section will describe the scope verification process for the Rams E-Caf project, outlining the steps taken to validate that all project deliverables meet the requirements outlined in the project scope statement. This process will help ensure that the project has been completed successfully and all deliverables have been accepted by stakeholders.

Project Name	*Rams E-Caf: A Web-Based Cafeteria Management System for the Asia Pacific College Cafeteria*		
Project Sponsor	Bernadette Sison	Project Manager	Corneliani Jon G. Melo
Date of Project Approval	April 22, 2022	Last Revision Date	N/A
Scope Description	IN SCOPE: • Rams E-Caf A Web-Based Cafeteria Management System that handles and monitor sales. • Web-based using any website supported browsers. • Digitization the ordering system of APC cafeteria Out OF SCOPE: • Non-APC Community / Non-APC Concessionaires • Native Mobile Application • No internet connection • Changing the lunch time or break time of the APC community, and all other solutions.		

Project Deliverables	• System manages accounts. • Customer ability to select vendors. • Customer can you provide feedback. • System ability to view order. • Food Concessionaire can confirm if item has been picked up. • Food concessionaire view reports of current sales • Food concession can edit food menu. • System can provide feedback.
Acceptance Criteria	The project will be accepted when it is agreed by stakeholders from the deliverables that have been met and agreed on.
Constraints	• Budget Limitation • Time Constraints • Resource Availability • Legal and regulatory constraints

6.2.8. Scope Control

Scope Definition: The scope of this project includes the development of a web application that will allow users to select food items, place orders, and make payments online. The scope also includes the integration of the application with the APC account system and the development of a database to store order records.

Scope Control Plan:

- Scope Statement: At the inception of the project, a scope statement shall be contrived which will act as a definitional framework outlining the perimeter and extent of said undertaking.
- Change Control Process: Any changes to the project scope will be managed through a formal change control process. All change requests will be documented and assessed by the project team.
- Scope Verification: The examination of the scope is a fundamental element for project success, and as such, the team will diligently perform routine reviews to confirm that it remains in agreement with set objectives.
- Scope Reporting: The project team will provide regular reports on the project scope to stakeholders, including updates on any changes to the scope.
- Scope Monitoring: The project team will actively monitor the project scope to ensure that it remains within the defined boundaries.
- Scope Management Plan: A scope management plan will be created to outline the overall approach to managing project scope.
- Risk appraisal: The potential hazards connected with any alteration to the undertaking's range of work will be detected and examined, followed by effective measures designed for mitigating identified risks.

By following this scope control plan, the project team can ensure that the project remains within the defined boundaries and is completed within the set timeframe and budget.

6.3. Cost Management Plan

In broader terms, the Rams E-Caf project's cost management plan is created to make sure that all project expenses are efficiently handled and kept under control, allowing the project to be finished within the allocated budget. This will make it more likely that the project will be successfully and promptly finished.

Cost Management Responsibilities

- The Project Manager oversees the project's overall cost management and serves as the point of contact for any potential costing problems.
- The finance team oversees making sure that the project's approved budget is being monitored.

Cost Measurement and Reporting

- Using a cost performance index (CPI) and a schedule performance index (SPI), costs will be tracked and reported.

Cost Change Approval

- Before making and putting into effect the following adjustments to the cost management, the project manager must give his or her approval.
- The Project Sponsor must be consulted and given approval before any changes to the costing or budget are made.

Budget Format and Standards

- A spreadsheet will be used to present the budgets and plot them in depth.
- If there are updates or adjustments to the costings, the budgets will be noted.

In broader terms, the Rams E-Caf project's cost management plan is created to make sure that all project expenses are efficiently handled and kept under control, allowing the project to be finished within the allocated budget. This will make it more likely that the project will be successfully and promptly finished.

6.3.1. Cost Management Approach

The following guiding concepts will serve as the foundation for the Rams E-Caf project's cost management strategy:

1. Costs are defined clearly:
   To properly identify and document project costs, including labor, materials, equipment, and other expenses, the project team will collaborate closely with stakeholders.
2. Budget creation and monitoring:
   Costs will be tracked and reported in real time, and a thorough project budget will be created and frequently updated throughout the project.

3. Cost projections:
   To make sure that the project budget is precise and reasonable, the project team will employ a range of cost estimation approaches.
4. Cost variance analysis:
   The project team will do variance analysis to find and rectify any cost overruns or savings while keeping a tight eye on expenses throughout the project.
5. Cost management roles and responsibilities:
   All project team members will be informed of the precise roles and duties for cost management.
6. Approval process for changes:
   A formal procedure for approving adjustments to the project's budget will be developed and put into place.
7. Reporting and communication:
   Regular cost reports will be created and distributed to all parties involved, such as the project sponsor, project team, and management.

6.3.2. Measuring Project Costs

A specific method for applying Earned Value Management (EVM) to measure project costs will be included in the Cost Management Plan for the Rams E-Caf project. A specific method for applying Earned Value Management (EVM) to measure project costs will be included in the Cost Management Plan for the Rams E-Caf. This will entail keeping track of and releasing numerous Earned Value signs, including:

1. The budgeted expenses of the work that was anticipated to be finished at a particular period are measured using the terms Budgeted Cost of Work Scheduled (BCWS) or Planned Value (PV).
   The total labor expense for the TESTING WBS must be multiplied by the percentage of completion for the WBS to determine the BCWS or Planned Value:

   BCWS = Total labor cost of TESTING WBS x Percentage of completion
   = (PHP 93,739.94) x 91.53%
   = PHP 85,800.17

   As a result, the Planned Value (PV) or Budgeted Cost of Work Scheduled (BCWS) for the TESTING WBS Is PHP 85,800

2. Earned Value (EV) or Budgeted Cost of Work Performed (BCWP) is a measure of the estimated price of the work that has been finished at a particular period.

   Example:

   The proportion of work completed for each job or WBS element is necessary to determine the Budgeted Cost of Work Performed (BCWP) or Earned Value (EV). Assuming that each Testing phase task has been completed to a certain percentage:

Week 40: Testing Phase 1 - 25%
Week 41: Testing Phase 2 - 50%
Week 42: Testing Phase 3 - 75%
Week 43: Testing Phase 4 - 100%

The Budgeted Cost of Work Performed (BCWP) or Earned Value (EV) can then be determined as follows:

EV = BCWP (*) % of work completed
EV = (₱60,048.00 x 0.25 (25%)) + (₱60,048.00 x 0.25 (50%)) + (₱60,048.00 x 0.25 (75%)) + (₱60,048.00 x 0.25 (100%))
EV = ₱15,012 + ₱15,012 + ₱15,012 + ₱15,012
EV = ₱60,048.00

As a result, the Earned Value (EV) or Budgeted Cost of Work Performed (BCWP) is ₱93,739.94

6.3.3. Reporting Format

A thorough spreadsheet or table would likely be the best reporting format for the expense management strategy of the Rams E-Caf service project. The project's budget, actual costs incurred, expected costs, and any variations or inconsistencies ought to all be included in this format. The project team, stakeholders, and management should all be able to access the format and understand it without difficulty. To give the expense information a visual representation, a bar chart or Gantt chart can also be used. The following components would be part of the reporting format for the Rams E-Caf project's cost management plan:

- Executive Summary:
  An outline of the project's overall budget, any significant cost issues or variations, and any steps taken to address them is included in the cost management plan.

- Budget Overview:
  A thorough financial breakdown includes the project's overall cost, the price of each phase or deliverable, and the price of each project resource (such as personnel, supplies, equipment, etc.).

- Cost Variance Analysis:
  A thorough examination of discrepancies between the project's estimated and actual costs. This should thoroughly justify the deviations' causes, their effects on the project, and any steps taken to address them.

- Budget Forecast:
  A forecast of the project's foreseeable costs, considering any probable cost variations and their potential influence on the undertaking.

- Approval and Sign-off:
  The part where the cost management strategy is reviewed, approved, and signed off on by the project's manager and other major stakeholders.

- Appendices:
  Any more records or materials, including invoices, change request forms, and comprehensive cost breakdowns.

6.3.4. Cost Variance Response Process

The Control Thresholds for this project are a CPI or SPI of less than 0.8 or greater than 1.2. If the project reaches one of these Control Thresholds a Cost Variance Corrective Action Plan is required. The Project Manager will present the Project Sponsor with options for corrective actions within five business days from when the cost variance is first reported. Within three business days from when the Project Sponsor selects a corrective action option, the Project Manager will present the Project Sponsor with a formal Cost Variance Corrective Action Plan. The Cost Variance Corrective Action Plan will detail the actions necessary to bring the project back within budget and the means by which the effectiveness of the actions in the plan will be measured. Upon acceptance of the Cost Variance Corrective Action Plan, it will become a part of the project plan and the project will be updated to reflect the corrective actions.

6.3.5. Cost Change Control Process

The following steps will be part of the cost change control process:

Identification of the cost change:

1. A cost change request form must be used to identify and record any suggested modifications to the project's costs or budget.
2. Analysis of the cost change:
   The project team will evaluate the proposed modification and determine its possible impact on the project's budget, resources, and timeline.

3. Approval of the cost change:
   The project sponsor and other relevant stakeholders are going to review and authorize the request for a cost change.

4. Implementation of the cost change:
   Upon approval, the cost adjustment will be carried out in accordance with the project's budget and schedule.

5. Tracking and monitoring of the cost change:
   The project team will keep tabs on how the cost change will affect the project's budget and schedule and make any required adjustments to keep things on track.

6. Reporting on the cost change:
   The project status report will include the cost change, any pertinent financial data, and any corrective actions that were implemented.

The expense change control procedure will be implemented to make sure that any alterations to the project budget or expenses are quickly found, assessed, and approved. By doing this, you may lessen the effect of cost fluctuations on the project's budget and schedule and help to keep it on pace to achieve its goals.

6.3.6. Project Budget

The budget for this project is detailed below. Costs for this project are presented in various categories based on the summary budget of the project charter.

Material Costs	PHP 32,354.00~
Hosting Costs	PHP 894.9 per month~
Payment Gateway	PHP 0.00 (Registration Fee)
Electricity Cost	PHP 11.3168 kwh / 3395.04 per month
Labor Cost	PHP 60,048.00
Deployment Cost	PHP 54,559
Total Project Cost	PHP 151,250.94

Price Reference:

- https://aws.amazon.com/ec2/pricing/
- https://www.amazon.com/Microsoft-Sufrace-QL2-00015-i5-4300U-Keyboard/dp/B071VXYBJH
- https://paynamics.biz/
- https://www.asus.com/ph/laptops/for-gaming/tuf-gaming/2021-asus-tuf-dash-f15/

6.4. Schedule Management Plan

6.4.1. Introduction

The Schedule Management Plan is an important document that outlines the approach and procedures developing, monitoring, controlling, and reporting on the project schedule. The purpose of this plan is to ensure that the project is completed on time, within budget, and to the required level of quality. A well-planned schedule management plan is crucial to achieve the succession of the project as it enables the project team to track progress against the project timeline, potential delays or issues and take corrective action.

This plan will describe in detail the schedule management approach that will be used to create the project schedule, the procedures for monitoring and controlling the schedule throughout the project lifecycle, as well as the process for making schedule changes and managing scope changes. It will also define the roles and responsibilities of the project team members involved in schedule management and the tools and

techniques that will be used to manage the schedule.

6.4.2. Schedule Management Approach

The project schedules will be created using Microsoft Project as the scheduling tool/format with the deliverables identified in the project's Work Breakdown Structure (WBS). This will provide a visual representation of the project schedule including start and end dates of each task, dependencies, and milestones. The project schedule will be reviewed and updated on a regular basis to ensure that it remains accurate and up to date.

Schedule milestones will be established to provide the team with a clear understanding of major project deliverables and deadlines. The following will be the milestones for the project schedule:

Milestone	Timeline
Project Kick-off	1st Month
Project Approval	2nd Month
Completion of Design and Development	3rd to 7th Month
Completion Test Plan	8th Month
Finalizing the Document	9th Month

The schedule deployment roles and responsibilities will be assigned as follows: The Project Manager will be responsible for overseeing the entire schedule management process, including the development of the schedule, and ensuring that it is regularly reviewed and updated. The Project Manager will receive schedule approval from the Project Sponsor and baseline the schedule.

Role	Responsibility
	• Approve major changes and requests. • Overall decision-making.

Project Client (APC Concessionaires, APC Center)	• Responsible for Scope Management Activities. • Reviews issues and provides direct resolution. • Approve Scope Management Plan.
Project Manager (Corneliani Jon Melo)	• Overseeing the entire Schedule and Scope Management Plan Process • Development of the Schedule • Ensuring that the Schedule Management Plan and Scope Management Plan are Regularly Updated and Reviewed. • Responsible for Scope Management • Approves scope change requests within his authority.
QA Tester (Isiah Jade Tutor and Joshua Cudal)	• Perform thorough testing of the Rams E-Caf system to identify defects, bugs, and functional issues. • Develop test plans, test cases, and test scripts based on the project requirements and specifications. • Execute test cases and document the results, including any identified defects or issues. • Collaborate with the development team to understand the system functionality and resolve any discrepancies or clarifications related to requirements. • Participate in test plan reviews and provide input to ensure comprehensive test coverage. • Conduct regression testing to ensure that previously identified issues have been resolved and that new changes do not introduce new defects.
Project Adviser (Manuel Calimlim Jr.)	• Provide an independent review and analysis of the project scope management practices. • Provide feedback on any scope and schedule changes. • Approves major scope and schedule changes request.

	• Approves overall project documentation

The team will work collaboratively to develop and update the project schedule, with each member responsible for their assigned tasks and providing regular status updates. The schedule will be reviewed and updated regularly by the Project Manager to ensure that it remains accurate and up to date.

6.4.3. Schedule Control

The Rams E-Caf project schedule will be monitored and controlled throughout the project life cycle to ensure that the project is progressing according to the plan. The following schedule control activities will be performed:

Schedule Updates: The project schedule will be updated on a regular basis to reflect the latest project status. The project manager will be responsible for updating the schedule, and the updated schedule will be shared with the project team and stakeholders.

Schedule Reviews: The project team will conduct regular schedule reviews to identify potential schedule risks and issues. The reviews will be conducted on a weekly basis, and any significant issues will be escalated to the Project Manager for resolution.

Schedule Communication: The project schedule will be communicated to the project team and stakeholders on a regular basis to ensure that everyone is aware of the project's progress. The Project Manager will be responsible for communicating the schedule, and any changes to the schedule will be communicated promptly to all relevant parties.

Roles and Responsibilities:

- The Project Manager is responsible for updating the project schedule, conducting regular schedule reviews, and communicating the schedule to the project team and stakeholders.
- The Project team members are responsible for providing accurate status updates and notifying the Project Manager of any potential schedule risks or issues.
- Stakeholders are responsible for reviewing the project schedule and providing feedback to the Project Manager.

To implement these schedule control activities, the Rams E-Caf project team will be able to proactively manage the project schedule potential schedule risks and ensure that the project is completed on time.

6.4.4. Schedule Changes and Thresholds

The Rams E-Caf project schedule will be created based on the best available information at the time of development. As the project progresses, it is expected that there may be changes to the project schedule. Any changes to the project schedule must be requested and approved by the Project Sponsor before the

changes are made.

To ensure that the project stays on track, threshold limits have been set. Any change to the schedule that exceeds the threshold limit must have a schedule change request submitted and approved by the project sponsor before the schedule change is made. The threshold limit for this project has been set at 10%. This means that any schedule change that results in a delay of 10% or more from the original schedule baseline must have a schedule change request submitted and approved by the project sponsor.

The project team is responsible for monitoring the schedule on an ongoing basis and reporting any schedule changes or potential delays to the project sponsor. The project sponsor will review and approve or deny any schedule change requests based on their impact on the project budget, resources, and overall project objectives.

6.4.5. Scope Change

Occasionally, changes to the project scope may be necessary and approved by the project sponsor. These changes may result in the schedule needing to be re-baselined to ensure that it accurately reflects the project's new scope. Examples of scope changes may include new deliverables or requirements that were not previously considered during the original schedule's development.

In these situations, the Project Manager and the team must carefully evaluate the impact of the scope change on the project schedule and its resources. The project team should also consider any additional time and resources that may be required to complete the project, as well as the potential impact on other project constraints such as cost and quality.

Furthermore, before implementing any scope changes, the project team must ensure that the project sponsor approves the change request and that a corresponding schedule change request is submitted and approved. The project manager and team must update the project schedule to reflect any approved scope changes and ensure that all stakeholders are informed of the changes and their impact on the project's schedule.

6.5. Staffing Management Plan

6.5.1. Introduction

To guarantee the success of Rams E-Caf, the staffing management plan will be essential. The plan will prioritize strategies to manage and organize human resources effectively. To do this, we will identify staffing needs, acquire the ideal staff, and ensure that their talents are utilized optimally to offer our patrons exceptional service.

Rams E-Caf, values the integral contribution our staff members have when it comes to ensuring that our patrons have a pleasant and inviting time. To maintain this, our staffing management blueprint adheres to our business objectives and entails various focal points: training and growth, performance management, recruitment and selection, and workforce preparation.

6.5.2. Roles and Responsibilities

By clearly defining and assigning roles and responsibilities, Rams E-Cafe can ensure effective implementation of the staffing management plan. This collaborative effort among the management team, HR department, hiring managers, supervisors, employees, and customers contributes to the overall success of the café's staffing strategies and ultimately enhances the customer experience.

Role	Authority	Responsibility	Competency
Project Sponsor (Ms. Bernadette Sison)	Ultimate decision-making power.	Defines the project objectives, scope, and success criteria.	• Strong leadership skills • Strategic thinking • Understanding of organizational objectives
Project Team (Coderist)	Authority over assigned tasks and responsibilities	Execute project tasks and assignments.	Varied competencies depending on roles and responsibilities within the team
Project Manager (Corneliani Melo)	Authority within project boundaries	• Overall project management • Create project plan. • Resource allocation • Risk management	• Leadership skills • Communication skills • Organizational skills • Knowledge of project management methodologies and tools
Internal User of the System (APC Community)	Authority to use the Rams E-Caf system for their daily operations.	Utilize the Rams E-Caf system to perform their respective tasks and duties effectively and efficiently.	Familiarity with the Rams E-Caf system interface and functionality. Understanding of their department's workflows and processes. Ability to navigate and use the system effectively

External Users of the System (ITRO)	Authority to access and use the Rams E-Caf system for their tasks and assignments.	Utilize the Rams E-Caf system to receive work orders and assignments. Update job statuses and progress in the system. Record any relevant data or information related to their tasks.	Proficiency in using the Rams E-Caf system and its features. Knowledge of the organization's processes and procedures related to their tasks. Ability to accurately input and update information in the system.
External Users of the System (APC Center)	Authority to access and use the Rams E-Caf system for managerial tasks	Utilize the Rams E-Caf system to review and analyze performance metrics. Assign work orders and tasks to ITRO. Monitor job statuses and progress. Generate reports and insights from system data.	Proficiency in using the Rams E-Caf system and its managerial features. Knowledge of the organization's processes and procedures related to their managerial tasks. Ability to interpret and analyze system data for decision-making.

6.5.3. Project Organizational Charts

The project organization chart for Rams E-Caf provides a visual representation of the hierarchical structure and roles within the project team, establishing clear lines of communication, defining authority levels, and facilitating efficient decision-making. It ensures that team members understand their responsibilities and how they fit into the overall project structure, promoting accountability, coordination, and collaboration. By streamlining communication channels and clarifying roles, the organization chart enhances transparency, resource alignment, and effective project governance, contributing to the successful execution of the project.

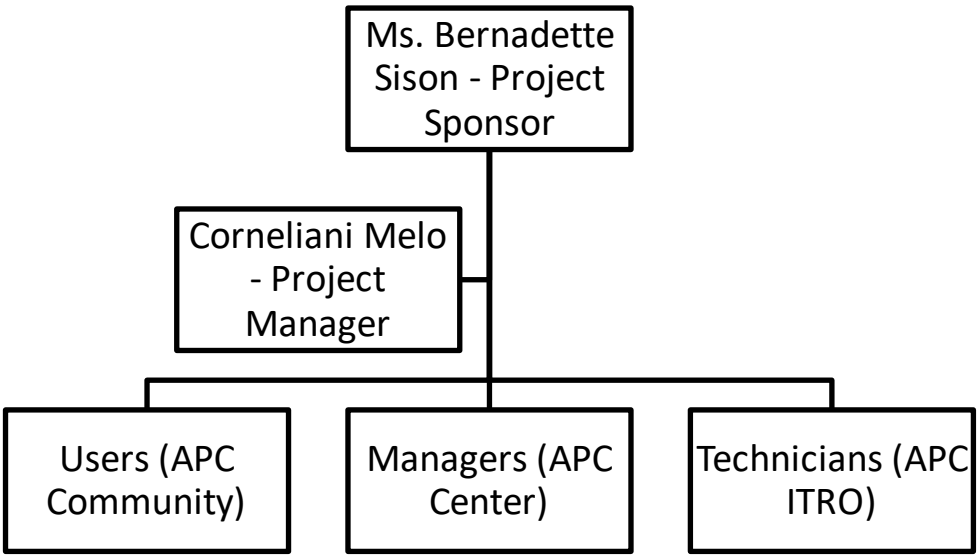

Figure 6.5—1: Project Organizational Chart

6.5.4. Staffing Management

The Staff Management Plan for Rams E-Caf is designed to ensure the efficient and effective utilization of human resources throughout the project lifecycle. This plan outlines the strategies and procedures for acquiring, developing, and managing the project team to meet project objectives and deliverables.

In the staff acquisition phase, the plan defines the roles and responsibilities needed for the project and outlines the process for recruiting and selecting qualified individuals. This includes identifying the required skills and expertise, advertising job openings, conducting interviews and assessments, and obtaining approvals from project stakeholders. By carefully selecting the right individuals for each role, the plan aims to build a high-performing team that can effectively contribute to the success of Rams E-Caf.

Once the team is assembled, the staff development phase focuses on enhancing the skills and competencies of team members. This includes conducting skills assessments, identifying training needs, and providing relevant professional development opportunities. The plan also encourages knowledge sharing and cross-functional training to foster a collaborative and learning-oriented environment. By investing in the continuous development of the project team, Rams E-Caf can ensure that its members have the necessary skills and knowledge to deliver high-quality outcomes.

Role	Project Responsibility	Skills Required	Number of Staff	Performance Reviews	Recognition and Rewards
Project Manager	Overall project planning, coordination, and execution	Leadership, communication, strategic thinking, problem-solving	1	Regular evaluations based on project milestones	Performance bonuses, promotions, recognition in meetings
Project Team Leader	Team coordination and task delegation	Leadership, communication, organization, decision-making	1	Regular evaluations based on team performance	Team performance bonuses, commendations
Project Team Members	Execution of project tasks and deliverables	Technical skills related to specific project requirements	5	Regular evaluations based on individual performance	Individual performance bonuses, appreciation emails

Executive Sponsor	Provide guidance, support, and resources for the project	Leadership, strategic thinking, decision-making	1	Periodic reviews to assess project progress and alignment	Public recognition, bonuses, leadership opportunities

Table 6.5—2: Staffing Management

6.6. Change Management Plan

6.6.1. Introduction

The Rams E-Caf project aims to introduce an alternative online ordering system for the APC cafeteria. The project involves significant changes to the current traditional ordering system used by customers and food concessionaires. These changes require careful planning and execution to ensure successful adoption by all stakeholders. The change management plan outlines the strategies and actions that will be taken to manage the transition from the traditional to the alternative ordering system, including communication, training, and support to all stakeholders. By implementing an effective change management plan, the project team can minimize resistance to change and maximize the chances of success for the project.

6.6.2. Change Control Board

The Change Control Board (CCB) for the Rams E-Caf project will be responsible for reviewing and approving or rejecting all proposed changes to the project. The CCB's primary objective is to ensure that any changes made to the project are consistent with the project's objectives, scope, and constraints, and to minimize the impact of these changes on the project's timeline, budget, and quality.

Name	Position	CCB Role
Bernadette Sison (APC Center)	Rams E-Caf Project Sponsor	CCB Chair
Corneliani Melo	Rams E-Caf Project Manager	CCB Member
Jamir Sia	Rams E-Caf Full Stack Developer	CCB Co-Chair

The CCB will review proposed changes regularly, and decisions will be made by consensus. If consensus cannot be reached, the project manager will make the final decision. All decisions and actions taken by the CCB will be documented in the project's change management plan, and all stakeholders will be informed of the decisions and actions taken.

6.6.3. Roles and Responsibilities

Roles and Responsibilities for Change Management Process: Role:
Project Manager Responsibilities:

- Develop and manage the change management plan.
- Ensure all changes are properly documented and tracked.
- Ensure changes are reviewed and approved by the change control board.
- Ensure changes are implemented as approved.

- Communicate changes to project stakeholders. Role:

Change Control Board Members Responsibilities:

- Review proposed changes and provide approval or rejection.
- Evaluate the impact of proposed changes on the project.
- Ensure changes align with project goals and objectives.
- Provide guidance and support to project team members regarding changes.

Role: Project Team Members Responsibilities:

- Identify potential changes and submit requests for changes.
- Provide information on the impact of proposed changes on project scope, schedule, and budget.
- Assist in evaluating the impact of proposed changes.
- Implement approved changes.
- Communicate changes to stakeholders.

Role: Project Sponsor Responsibilities:

- Review and approve changes that require sponsor approval.
- Provide guidance and support to the change control board and project team regarding changes.
- Ensure changes align with overall project goals and objectives.
- Communicate changes to senior management and other stakeholders as appropriate.

6.6.4. Change Control Process

Change Control Process for Rams E-Caf Project:

1. Identify the Change: Any member of the project team may identify the need for a change. The individual should document the request in the change request form, which includes details such as the reason for the change, the impact on the project, and the proposed solution.
2. Evaluate the Change: The Project Manager and the Change Control Board will evaluate the change request to determine its feasibility, impact, and urgency. They will analyze the potential impact of the change on the project, including its effect on cost, schedule, scope, quality, and risk.
3. Review and Approve: If the change is approved, the Project Manager will update the project plan and schedule, assign resources as needed, and communicate the change to all stakeholders. If the change is not approved, the requestor will be informed of the decision, and the request will be closed.
4. Implement the Change: Once the change is approved, the Project Manager will work with the project team to implement the change. This may include modifying project deliverables, updating project documentation, and communicating the change to stakeholders.
5. Verify the Change: The Project Manager and the Change Control Board will review the implementation of the change to ensure that it was completed according to the approved plan. They will verify that the change has achieved the intended results and that it has not had any adverse effects on the project.
6. Close the Change Request: The Project Manager will update the project documentation to reflect

the change and close the change request. The change request form and all supporting documentation will be stored in the project repository for future reference.

6.7. Communications Management Plan

6.7.1. Introduction

The Communications Management Plan for Rams E-Caf outlines the strategies and approaches to effectively manage and facilitate communication within the project. This plan recognizes the importance of clear and consistent communication in ensuring project success, stakeholder engagement, and timely decision-making. By establishing guidelines and processes for communication, the Rams E-Caf project team can effectively exchange information, manage expectations, and foster collaboration among team members and stakeholders.

The Communications Management Plan for Rams E-Caf encompasses various aspects, including the identification of key stakeholders, communication objectives, channels, and frequency of communication. It defines the roles and responsibilities of communication focal points within the project team and establishes a clear escalation path for addressing any communication issues or conflicts that may arise. Additionally, the plan outlines methods for documenting and archiving project communications, ensuring transparency and accountability.

By implementing the Communications Management Plan, Rams E-Caf can facilitate efficient and effective communication, enhance stakeholder relationships, mitigate risks, and ensure that project information is disseminated to the right people at the right time. This plan serves as a roadmap for the project team to navigate the complexities of communication and foster a collaborative and informed project environment.

6.7.2. Communications Management Approach

The communications management approach for Rams E-Caf is designed to ensure effective and efficient communication throughout the project. The approach involves clear and concise communication strategies, channels, and processes that enable timely and accurate exchange of information among stakeholders. By implementing this approach, Rams E-Caf aims to enhance collaboration, maintain transparency, and facilitate informed decision-making.

The communications management approach includes identifying key stakeholders and their communication needs, establishing clear communication objectives, and determining the most appropriate channels for communication. It also outlines the frequency and timing of communication activities, ensuring that information is shared in a timely manner. Additionally, the approach emphasizes the importance of two-way communication, encouraging feedback and active participation from stakeholders.

To support the communications management approach, Rams E-Caf will utilize various communication tools and technologies, such as project management software, email, meetings, and progress reports. Regular communication checkpoints and updates will be established to keep stakeholders informed about project progress, milestones, and any changes or issues that may arise.

6.7.3. Communications Management Constraints

Communications management constraints for Rams E-Caf refer to the limitations or challenges that may impact the communication processes and activities within the project. These constraints can arise from various factors and need to be identified and addressed to ensure effective communication. Some of the common communications management constraints for Rams E-Caf may include:

1. Time Constraints: Projects often operate under tight timelines, which can restrict the availability of stakeholders and limit the time allocated for communication activities. Time constraints may lead to rushed or inadequate communication, impacting the clarity and effectiveness of the messages conveyed.
2. Resource Constraints: Limited resources, such as budget and technology infrastructure, can pose challenges in implementing robust communication strategies. Insufficient resources may limit the use of advanced communication tools or hinder the establishment of dedicated communication channels, affecting the efficiency and reach of communication efforts.
3. Geographical and Cultural Constraints: Rams E-Caf may operate in a distributed environment with team members or stakeholders located in different geographic regions or with diverse cultural backgrounds. These differences can create communication barriers, including language barriers, time zone differences, and varying communication preferences, which need to be addressed for effective collaboration.
4. Stakeholder Availability and Engagement: The availability and engagement of stakeholders can impact the success of communication efforts. Stakeholders with busy schedules or competing priorities may not be readily accessible, making it challenging to obtain timely feedback or approvals. Lack of stakeholder engagement can result in miscommunication, delays, and hindered decision-making processes.
5. Information Overload: In complex projects like Rams E-Caf, there can be a significant amount of information to be communicated. The risk of information overload arises when stakeholders are overwhelmed with excessive or irrelevant information, leading to confusion and reduced attention to critical project updates.
6. Legal and Regulatory Constraints: Depending on the industry and nature of the project, there may be legal or regulatory requirements that dictate how information is communicated or shared. Compliance with these constraints may impact the communication approach, requiring additional measures to ensure confidentiality, privacy, or data protection.

Understanding and addressing these communication management constraints is essential to develop strategies that mitigate their impact. By proactively identifying and planning for these constraints, Rams E-Caf can overcome communication challenges, enhance stakeholder engagement, and improve project outcomes.

6.7.4. Roles

Roles	Responsibilities
Project Sponsor	A high-level executive who provides financial resources and strategic direction for the project.
Program Manager	A person responsible for overseeing the Rams E-Caf and ensuring that it aligns with the organization's overall goals and objectives. The program manager might oversee multiple related projects within the organization.
Key Stakeholders	Individuals or groups who have a vested interest in the Rams E-Caf, such as team members, managers, and technicians who rely on the system for their daily operations.
Project Manager	The person responsible for planning, executing, and closing the Rams E-Caf. The project manager leads the project team and ensures that the system is completed on time, within budget, and to the required quality standards.
Development Team	A person responsible for the technical aspects of the Rams E-Caf, such as the system architecture, database design, and software development. The team ensures that the system meets the required technical specifications and standards, and that it is scalable, secure, and reliable.

Table 6.7—1:Communication Management Roles and Responsibilities

6.7.5. 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
Ms. Bernadette Sison	Staff at APC Center	Internal	Project Sponsor	berniel@apc.edu.ph

Users	Asia Pacific College Community	Internal	Internal User of the system	apc.edu.ph
Technicians	APC IT Resource Office	External	External user of the system	itro@apc.edu.ph
Managers	APC Center	External	External user of the system	APCCenter@apc.edu.ph
Corneliani Melo	Student	Internal	Project Manager	cgmelo@student.apc.edu.ph
Jamir Sia	Student	Internal	Full Stack Developer	jzsia@student.apc.edu.ph
Nathan Sinaguinan	Student	Internal	UI/UX Designer	nbsinaguinan@student.apc.edu.ph
Isiah Tutor	Student	Internal	QA Tester	imtutor@student.apc.edu.ph
Joshua Cudal	Student	Internal	QA Tester	jpcudal@student.apc.edu.ph

Table 6.7—2: Project Team Directory

6.7.6. Communication Methods and Technologies

The communications management plan for Rams E-Caf encompasses various methods and technologies to ensure effective and efficient communication among project stakeholders. By leveraging email, meetings, project management software, collaboration platforms, document management systems, video conferencing tools, and project dashboards, Rams E-Caf aims to promote collaboration, address stakeholder needs, and maintain a shared understanding of project progress. With clear guidelines and protocols in place, the plan establishes streamlined communication processes and facilitates transparent information exchange. The goal is to foster collaboration, mitigate risks, and achieve successful project outcomes through effective stakeholder engagement and communication.

Communication Methods and Technologies of Rams E-Caf can include:

1. Email: Email is a widely used communication method for sending written messages, project updates, and documentation to stakeholders involved in Rams E-Caf. It allows for asynchronous communication and can be used for formal or informal communications.
2. Meetings: Face-to-face or virtual meetings provide an opportunity for stakeholders to come together, discuss project progress, address concerns, and make decisions. Meetings can be scheduled at regular intervals or on an ad-hoc basis as needed.
3. Project Management Software: The use of project management software, such as Jira, Trello, or Microsoft Project, can facilitate communication and collaboration among project team members. These tools allow for task assignment, progress tracking, document sharing, and discussion forums.
4. Collaboration Platforms: Collaboration platforms like Slack, Microsoft Teams, or Google Workspace provide real-time communication channels, file sharing, and integration with other project management tools. They enable teams to collaborate, share updates, and engage in discussions.
5. Document Management Systems: Document management systems, such as SharePoint or Google Drive, allow for central storage, version control, and sharing of project documents, plans, and reports. They ensure that stakeholders have access to the latest information and can collaborate on document editing.
6. Video Conferencing: Video conferencing tools like Zoom, Microsoft Teams, or Google Meet enable remote stakeholders to participate in virtual meetings, discussions, and presentations. They facilitate face-to-face communication and can include features like screen sharing and chat for enhanced collaboration.
7. Project Dashboards: Project dashboards provide a visual representation of project status, metrics, and progress. They can be accessed by stakeholders to quickly grasp the project's health and key updates without detailed communication.

The choice of communication methods and technologies will depend on the preferences and needs of the stakeholders, project requirements, and the availability of resources. It is essential to establish clear guidelines and protocols for communication to ensure consistent and effective information exchange throughout the Rams E-Caf project.

6.7.7. Communications Matrix

Channel	From	To	Type	Frequency	Format Used	Delivery media

Project Planning	Project Manager	Stakeholders	Meeting	Once Before the start of the project	Formal	MS Teams
Release planning	Project manager, Project team	Stakeholders	Meeting	Once before start of the project Updated when necessary	Formal	Email, MS Teams
Sprint Planning	Project manager	Project team	Meeting	Once every week	Informal	MS Teams
Management processes	Project manager, project team	Stakeholders	Artifact	Once Before start of the project Updated when necessary	Written Document	MS Teams, MS Word
Product backlog	Project manager	Project team	Artifact	Once every week	Written Document	MS Word
Project update	Project Manager	Project team	Meeting	Once every week	Informal	MS Teams
Management processes	Project manager, project team	Stakeholders	Artifact	Once Before start of the project Updated when necessary	Written Document	Email, Google Spaces

Product backlog	Project manager	Project team	Artifact	Once every week	Written Document	Google Spaces
Project update	Project Manager	Project team	Meeting	Once every week	Informal	Google Spaces

Table 6.7—3: Communication Matrix

6.7.8. Communication Flowchart

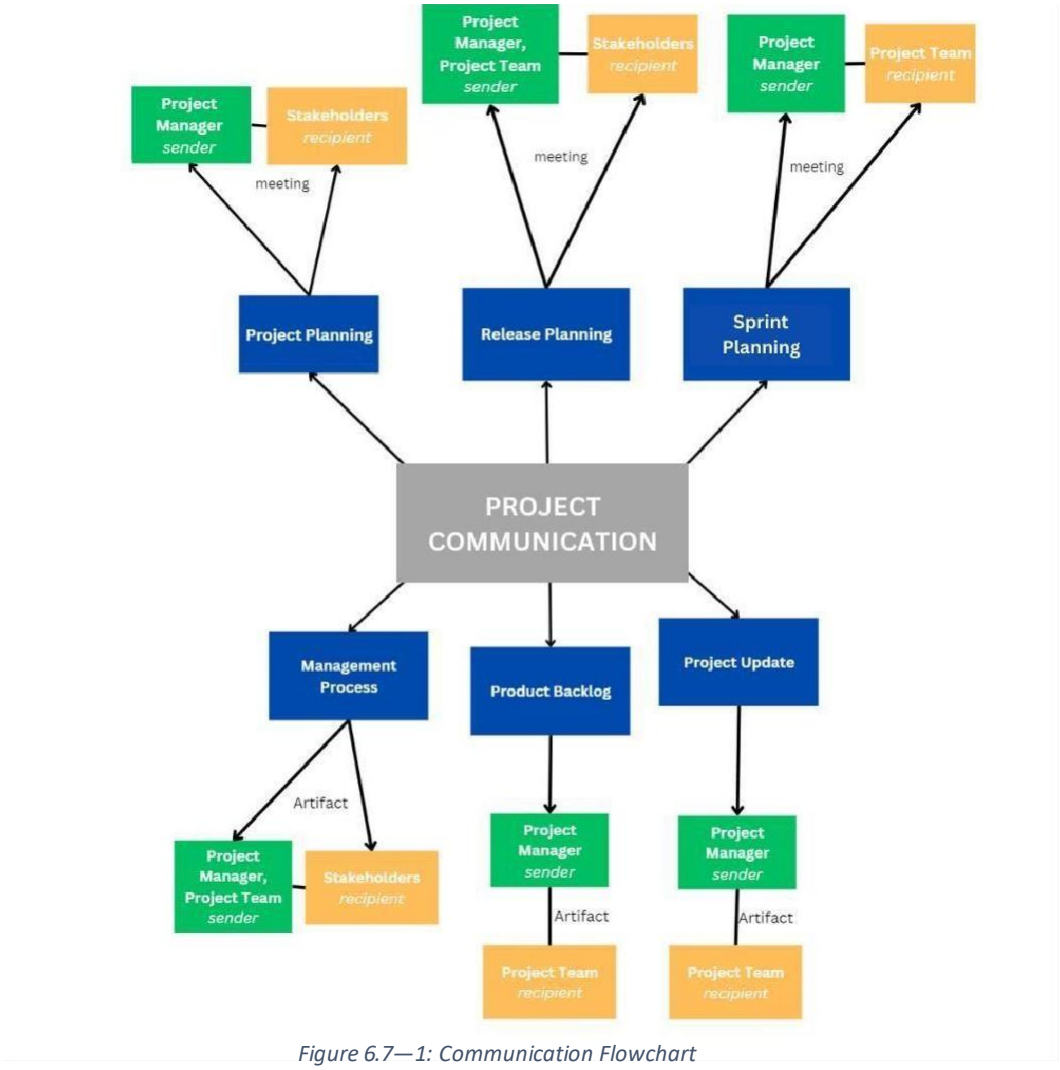

Figure 6.7—1: Communication Flowchart

6.7.9. Guidelines for Meetings

Meetings are a key component of effective communication in any project. The Rams E-Caf project is no exception. In order to ensure that meetings are productive, efficient, and effective, it is important to establish clear guidelines for meetings. These guidelines should include information on the purpose of meetings, the roles and responsibilities of attendees, and the procedures that will be followed during meetings.
Guidelines for Meetings of Rams E-Caf:

1. Purpose and Agenda: Clearly define the purpose of the meeting and establish a well-defined agenda beforehand. This ensures that the meeting stays focused and addresses the necessary topics.
2. Attendees: Invite only the relevant stakeholders whose presence is required for the meeting. Keep the attendee list concise to maximize efficiency and minimize distractions.
3. Schedule and Timing: Set a specific date, time, and duration for the meeting. Stick to the schedule to respect everyone's time and avoid unnecessary delays.
4. Preparation: Circulate meeting materials, such as agendas, presentations, or documents, in advance. This allows participants to review the materials and come prepared with any questions or input.
5. Facilitation: Appoint a skilled meeting facilitator who can guide the discussion, manage time effectively, and ensure everyone has an opportunity to contribute. The facilitator should encourage active participation and maintain a respectful and collaborative atmosphere.
6. Participation and Engagement: Encourage open and constructive dialogue among attendees. Give everyone a chance to share their perspectives, ask questions, and provide input. Foster an inclusive environment where all ideas are valued.
7. Action Items and Follow-up: Document action items, decisions, and key discussions during the meeting. Assign responsibilities and deadlines for action items and ensure that follow-up communication is sent to all relevant stakeholders to track progress.
8. Time Management: Stay focused on the agenda and allocate sufficient time for each topic. Avoid getting sidetracked by unrelated discussions or going off-topic. Respect the allocated time for the meeting and conclude on time.
9. Documentation: Maintain accurate meeting minutes or summaries that capture key points, decisions, and action items. Share these minutes with attendees and other stakeholders who may require the information.
10. Evaluation and Continuous Improvement: After each meeting, assess its effectiveness and gather feedback from participants. Identify areas for improvement and make adjustments to future meetings to enhance communication and collaboration.

By following these guidelines, Rams E-Caf can conduct productive and efficient meetings that facilitate effective communication, collaboration, and decision-making among project stakeholders.

6.7.10. Communication Standards

The best communication standards for the Rams E-Caf project may include the following:

- **Standardized Templates:** Developing and using standard templates for project communications, such as status reports, meeting agendas, and minutes, can ensure consistency and clarity in the information being shared.
- **File Naming Convention:** Developing a standard file naming convention for documents and files shared on the project can help ensure easy access and organization of information.
- **Web Portal/Network Tool:** Utilizing a standard platform, such as SharePoint or project management software, for project communication can improve access to information and collaboration among team members and stakeholders.
- **Video conferencing:** Use of Video conferencing tools like Google Meets, Zoom, Skype, etc. can be very useful for team members and stakeholders who are located at different geographic locations.
- **Communication protocols:** Having a standard communication protocol in place for sensitive or confidential information, such as who is authorized to share it and how it should be shared, can ensure the protection of sensitive data.

6.7.11. Communication Escalation Process

The ideal and best communication escalation process for the Rams E-Caf project would involve the following steps:
Communication Standards of Rams E-Caf:

1. Clarity and Conciseness: Communications within Rams E-Caf should be clear, concise, and easily understood by all stakeholders. Avoid using technical jargon or complex language that may hinder comprehension.
2. Professional Tone: Maintain a professional and respectful tone in all communications. Use appropriate language and avoid any form of discrimination, bias, or offensive remarks.
3. Timeliness: Respond to communications promptly and adhere to agreed-upon timelines for delivering information or updates. Avoid unnecessary delays and ensure that critical messages are communicated in a timely manner.
4. Consistency: Maintain consistency in the style, format, and branding of all communications. This includes emails, reports, presentations, and any other communication materials related to Rams E-Caf.
5. Use of Technology: Leverage appropriate communication technologies and platforms to facilitate efficient and effective information exchange. This may include email, instant messaging, project management tools, video conferencing, or other collaboration software.
6. Confidentiality and Data Privacy: Respect and maintain the confidentiality and privacy of sensitive information shared within Rams E-Caf. Adhere to applicable data protection regulations and policies.

7. Accessibility: Ensure that communications are accessible to all stakeholders, considering diverse needs such as language preferences, disabilities, or cultural differences. Provide necessary accommodation or translations when required.
8. Feedback and Collaboration: Encourage open feedback and collaborative discussions within Rams E-Caf. Foster an environment where all stakeholders feel comfortable expressing their opinions and ideas.
9. Documentation: Maintain accurate and comprehensive documentation of important communications, decisions, and agreements. This helps ensure transparency, accountability, and provides a reference for future discussions.
10. Stakeholder Engagement: Actively engage with stakeholders and promote two-way communication. Seek input, address concerns, and involve stakeholders in decision-making processes whenever appropriate.

By adhering to these communication standards, Rams E-Caf can establish a framework for effective and efficient communication that promotes understanding, collaboration, and successful project outcomes.

6.7.12. Glossary of Communication Terminology

Term	Definition
Communication Plan	A document outlining the communication strategy and protocols for the project team and stakeholders.
Stakeholder	An individual or organization that has an interest or concern in the project.
Communication Method	The means by which information is conveyed, such as meetings, email, telephone, or web portal.
Communication Frequency	The regularity with which project communications are distributed.
Communication Objective	The desired outcome or goal of a particular communication.
Communication Flowchart	A diagram showing the flow of information within a project.
Escalation Process	A procedure for resolving communication-based conflicts or issues.
Communication Matrix	A table outlining the communication requirements for a project.
Communication Standards	Standard templates, formats, or documents used for communicating within a project.

Communication Constraints	Factors that may limit or affect the effectiveness of project communications.
Communication Guidelines	Protocols for conducting meetings, teleconferences, and other forms of communication.
Communication Technology	Tools and platforms used for communication, such as SharePoint, message boards, and video teleconferencing.
Communication Escalation Process	A process for escalating communication-based issues or conflicts that cannot be resolved within the project team.
Communication Approaches	Different strategies and solutions are implemented to address communication constraints, ensuring that all stakeholders are kept informed and that the project's communication objectives are met.
Communication Flowchart	A diagram showing the flow of information within a project.
Escalation Process	A procedure for resolving communication-based conflicts or issues.
Communication Matrix	A table outlining the communication requirements for a project.
Communication Standards	Standard templates, formats, or documents used for communicating within a project.
Communication Constraints	Factors that may limit or affect the effectiveness of project communications.
Communication Guidelines	Protocols for conducting meetings, teleconferences, and other forms of communication.
Communication Technology	Tools and platforms used for communication, such as SharePoint, message boards, and video teleconferencing.
Communication Escalation Process	A process for escalating communication-based issues or conflicts that cannot be resolved within the project team.
Communication Approaches	Different strategies and solutions are implemented to address communication constraints, ensuring that all stakeholders are kept informed and that the project's communication objectives are met.

Table 6.7—4: Glossary of Communication Management Terminologies

6.8. Quality Management Plan

6.8.1. Introduction

For agile projects like scrum, a quality management strategy is required to preserve quality throughout the project. The quality standards that will be used to assess the Rams E-Caf project are defined in this plan. Along with articulating quality concepts and processes, the plan also offers a framework for addressing quality issues and defining the roles and responsibilities of team members.

Quality objectives

- Make sure the project satisfies or exceeds the expectations of the key stakeholders of the project.
- List the criteria for quality that the team will use to assess the project.
- To achieve quality standards, clarify roles and responsibilities of team members.
- Determine and fix any potential quality problems.
- Establish a structure to manage and uphold project quality across the course of the project.

Quality management plan

- **Definition of Done:** When key objectives and goals of the project have been achieved and are approved by the key stakeholders.
- **Acceptance Criteria:** Requirements that the Rams E-Caf must satisfy to be approved by the product sponsor.
- **Continuous Integration:** A technique for regularly integrating code updates into a common repository to make sure the final product is always in a state that can be released.
- **Test-Driven Development:** The system would undergo extensive testing to make sure all its components were in perfect working order and that the code met the standards for the system's integration with live servers in Asia Pacific College.

This Quality Management Plan will, in general, offer a thorough structure for sustaining managing and sustaining project quality. It will guarantee ensure the project meets or exceeds all stakeholders' expectations, while simultaneously establishing a precise framework of procedures, instruments, and roles and responsibilities for locating and addressing any potential problems with quality. Everyone involved should be aware of this plan and their role in making it successful.

6.8.2. Quality Management Approach

The Rams E-Caf project's quality management plan will make use of an to ensure that the project meets or exceeds all stakeholders' expectations, agile and scrum quality standards. Providing high-quality products and services will be given priority in the strategy. satisfying consumer needs comes before adhering to strict procedures.

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

Role	Description
Project manager	Charged with establishing the acceptance standards and making sure that the final

	product satisfies the stakeholders, staff, and its users
Project team leader	Oversees the team's adherence to the Scrum framework and works with the product owner and Development Team to enhance the final product.
Project Development Team	Responsible for creating the production of the system and uphold the quality standards
Project Sponsor	Provides executive support for the project

The approach will include the following steps:

1. **Define quality standards** – The project team Coderist will define and follow quality standards based on Agile and Scrum methodology and by the requests of the project sponsor given that it is aligned with the project goals.
2. **Quality planning** – To determine project needs and rank the most crucial features, the team will collaborate extensively with key stakeholders. To make sure that each iteration of the product offers value and complies with quality standards, the team will establish quality goals and a Product Backlog.
3. **Quality control** – This measures sprint progress reports to ensure that the product meets the defined requirements and quality goals. It would also identify defects, issues, and potential requests to the system.
4. **Quality Assurance** – A quality assurance program will be implemented to stop errors and problems before they start. The group will follow best practices and procedures to make sure the project is carried out in accordance with established principles and standards.
5. **Continuous Improvement** – The team will include recommendations for the next iteration of the project to improve on the Rams E-Caf project.
6. **Communication** – The team will maintain constant communication with the stakeholders, food concessionaires, customers, and project sponsor for them to be aware of the status of the project and provide feedback if needed.

The project team will apply Agile and Scrum techniques, such as user stories, sprints, and retrospectives, to make sure that quality is integrated throughout the project's lifecycle and meets the requirements of the project stakeholders as well as the organization's quality standards. As part of the project's lifetime, a risk management strategy will also be created to proactively identify and reduce any quality concerns.

The Rams E-Caf Quality Management Approach will place a strong priority on using an Agile and Scrum methodology to provide a high-quality product that satisfies client needs. To ensure that the project meets or beyond all quality objectives, the methodology will be adaptable and continually improved.

6.8.3. Quality Requirements / Standards

Given that the quality management plan will include both the product and process quality requirements, Rams E-Caf will be fully operational, user-friendly, and compatible with a variety of

devices that have internet connectivity and the most recent operating system.

Requirements for product quality

- Rams E-Caf will be fully operational and adhere to the product backlog's technical requirements.
- The interface shall be user-friendly to all the stakeholders and its users. This project comes with instruction manuals and training for the users/stakeholders.
- The project system would work with the clients' requests and Asia Pacific College's current technological infrastructure.
- The system works on different devices if the devices are connected to the internet.

Requirements for ensuring quality of process.

- To make sure the system complies with all technical requirements and standards, the development team will undertake an ongoing process of testing and quality assurance.
- The development team will use version control to make sure that any system alterations are properly documented, examined, and approved.
- The development team will regularly conduct sprint reviews to find and rapidly fix any quality problems.
- To ensure consistent system development, testing, and deployment, the development team will adhere to a standardized configuration management procedure.

Compliance Demonstration

- Before being made available to the client, Rams E-Caf will undergo testing and evaluation in accordance with the set quality standards and requirements.
- The development team will keep thorough records of all testing and quality assurance procedures, which will be provided to the client upon request.
- To make sure the system satisfies the client's requirements and expectations, the development team will run a formal acceptance test with them.
- To guarantee that the system maintains its compliance with the defined quality standards throughout time, the development team will offer continuous support and maintenance services.

Continual Improvement

The project team Coderist will be recommending features or functions that could be added to the Rams E-Caf for the next iteration to improve on it. The project team will also train a representative of the ITRO to be able to handle, update, and fix issues in the Rams E-Caf moving forward.

6.8.4. Quality Assurance

To guarantee that quality is attained through teamwork and ongoing improvement, the Rams E-Caf QA process will be merged with the Agile and Scrum methodology. The following actions will be taken:

- Defining quality standards – In order to create and record the project's quality criteria in the Quality Management Plan, the project team will work with stakeholders. All stakeholders will be made aware of the quality standards.

- Quality metrics – The project team will use quality metrics to track and report on the project's performance against quality standards.
    - Test coverage presents the percentage of the system that has been tested.
    - Case pass rate presents the test cases that have been passed.
    - Root Cause Analysis shows the percentage of issues that have been resolved at the root cause level.
- Continuous improvement – The developers would use the feedback to modify changes requested by the stakeholder and the client to ensure a quality product.
- Compliance with industry standards – The developers would ensure that Rams E-Caf would adhere to relevant industry standards such as accessibility standards, security standards, and data privacy regulations. Regular audits will be conducted to verify compliance with these standards.
- Reviewing feedback – The developers would constantly review feedback to improve and modify changes for improvement of the system.

To guarantee that the project delivers a high-quality result, the quality assurance metrics will be actively watched, tracked, and reported on a regular basis. Any infractions of these standards will be reviewed right away and fixed. The software application that will be used to gather data on these criteria will send regular reports to the project team. The process for ensuring quality will also be regularly examined to identify and implement changes. The Rams E-Caf must meet the highest standards possible, and all quality assurance indicators must be continuously monitored to guarantee the project's success.

6.8.5. Quality Control

In Agile and Scrum methodology, quality control is embedded into the development process, and the focus is on continuous testing and quality feedback. The Quality Control process for the Rams E-Caf project will involve the following steps:

- Continuous testing and feedback: The project team will carry out continuous testing to find flaws and make sure the product satisfies consumer expectations. Wherever it is practical, the testing will be automated.
- User Acceptance Testing (UAT): A sample of the system's users will test it to see if it meets their needs and expectations. At the conclusion of each sprint, the UAT will be conducted, and any adjustments needed will be made in response to user feedback.
- Compatibility Testing: To ensure compatibility and address any issues that may come up when the system is utilized in diverse contexts, the Rams E-Caf will be tested on a variety of platforms, including mobile devices and browsers.
- Continuous Monitoring: Following deployment, the project team will assess the Rams E-Caf's performance. This will entail monitoring crucial performance indicators including customer satisfaction, response speed, and system uptime. This will give crucial data to support any system improvements and help find any issues or bottlenecks.

The following quality metrics will be used to monitor and assess the system's performance:

- Test Coverage: The percentage of the system that has been tested.
- Test Case Pass Rate: The percentage of test cases that have been passed.
- User Happiness: Measured through surveys and feedback from users.
- Response Time: The time taken for the system to respond to user requests.
- System Uptime: The percentage of time the system is available and functioning as expected.
    - Tracking and Documenting Quality Evaluations: The project team will monitor and record the results of the quality control process, which will be used to assess the success of any corrective measures that are implemented as well as the project's progress.

In conclusion, the quality control process for Rams E-Caf will be an integral part of the development process, with a focus on continuous testing, user feedback, and performance monitoring. The project team will continuously monitor and assess the quality of the product as part of the Quality Control process, ensuring that it meets the required quality standards and customer requirements.

6.8.6. Quality Control Measurements

The Agile and Scrum techniques will be employed to promote continuous inspection and modification throughout the project lifecycle for the Rams E-Caf project, which will adopt a transparent and collaborative approach to quality control.
To guarantee that the product fulfills the standards and criteria, quality control measures will be made at each stage of the development process and documented on a shared, viewable platform, such as a project management tool, as opposed to a static spreadsheet or table. The following details will be on the platform:

- Measurement date
- Measurement type (e.g., automated testing, code review, peer review, user story acceptance)
- The measurement's findings (such as passed/failed, the number of flaws discovered, and the percentage of code coverage)
- Requirements and standards for comparison
- Member of the team in charge of measuring
- Team member responsible for assessing the measurement results.
- Taking any required corrective actions
- The date that the remedial measures were finished.

Real-time quality control measurements will be tracked using dashboards and other visual tools so that all team members can easily access and understand the data. The team will be able to quickly react and make the necessary adjustments thanks to the dashboards, which will highlight patterns and issue areas. During routine team reviews, such as sprint reviews and retrospectives, the quality control metrics will be examined, and the approach will be modified as necessary. The project team will identify possible areas for improvement together and address any issues they uncover.
In conclusion, the Rams E-Caf project will employ Scrum and Agile methodologies to put into practice a cooperative and flexible quality control strategy. The team will routinely evaluate the product's quality and make the necessary modifications to ensure that it meets the requirements and needs. All quality control metrics will be gathered and tracked in real-time on a single platform. The group

will work together to solve any issues and put any needed adjustments into place.

6.9. Risk Management Plan

6.9.1. Introduction

The risk management plan includes an outline of the risk management process, the project team's duties and responsibilities, and the plan for risk assessments. The strategy will also outline the methods for managing and monitoring risks as well as the strategies for handling them. The efficiency of the plan will be evaluated by how quickly threats are found and addressed.
The following are information that are considered when developing a Risk Management Plan for the project, Rams E-Caf:

- **Identifying Risk:** The Rams E-Caf development, implementation, and operation project group should be aware of any potential dangers. Risks may appear from a variety of ways, including technical problems, legal requirements, cybersecurity, and human factors. Risks should be identified and then evaluated for both chance of occurrence and potential effects on the project.
- **Risk Monitoring:** The continuous nature of risk management requires regular monitoring and assessment. The project team should implement a regular review process to ensure that risk management policies are up to date, risks are identified, and new risks are uncovered. Any adjustments made throughout the open and transparent review process should be communicated to all stakeholders.
- **Contingency Plans:** The project team must develop contingency plans for significant risks that could significantly affect the project's success. Plans for alternatives should outline the steps required to minimize the risk's impact and maintain project progress. These plans should be frequently examined and altered as the project advances and new hazards are identified.
- **Risk Mitigation Tactics:** The project team should create a plan for minimizing or avoiding the risks after having identified and assessed the risks. Prioritizing mitigation tactics should be done in accordance with how well they reduce risk and how easily they can be implemented in terms of both time and money. Contingency planning, redundancy, risk transfer through insurance, and the creation of fallback processes are some possible strategies.

The Rams E-Caf project team Coderist, will ensure that the project is executed effectively, satisfying all objectives while avoiding potential risks by taking these extra considerations into account in a risk management plan.

6.9.2. Top Three Risks

1. The Rams E-Caf will not be accessed by the customers if the customers have no internet connection.
2. The risk of connection interruption in the middle of payment process done with the use of payment gateways inside the Rams E-Caf web application.

3. The unsynchronized stocks/available food amount displayed in the web application and the physical food stall may cause confusion and conflict.

6.9.3. Risk Management Approach

The steps below are to help in being able to manage risks in the Rams E-Caf project:

- **Risk Identification and Assessment:** The project team will identify project-related dangers through brainstorming sessions, research into previous project experiences, and appraisal of the project's requirements and scope. A risk registry will contain a list of the dangers as well as information on their description, potential impacts, and likelihood of occurrence. The risks that have been identified will be evaluated in terms of both their likelihood of happening and their impact on the project. Using the risk matrix, the project team will assess each risk according to its seriousness. High severity risks will be given priority for either contingency planning or mitigation.
- **Risk Monitoring:** Throughout the project, risks will be regularly watched for. The project team will periodically examine the risk register to make sure that risks are being managed appropriately. The risk assessment procedure will be repeated as new threats are discovered and added to the risk register during the project.
- **Risk Mitigation:** For hazards with a high effect and likelihood of occurrence, risk mitigation plans will be devised. The mitigation plans will contain risk-mitigation techniques. In addition, the project team will choose backup strategies for hazards that cannot be eliminated.
- **Risk Communication:** The process of informing relevant parties—such as the project sponsor, the project team, and other stakeholders—about risks and associated management techniques is known as risk communication. The project team will keep all stakeholders informed and continue frequent communication if any risks are found, evaluated, and dealt with.

6.9.4. Risk Identification

The Rams E-Caf project utilized expert interviews, historical data analysis, and a risk assessment conference to identify and document risks. A risk register was created, containing descriptions, potential impact, and likelihood of occurrence. The project team and stakeholders participated in a risk assessment meeting, contributing to the identification and assessment of risks. The team also reviewed historical information and conducted expert interviews to identify additional risks and develop mitigation strategies. The identified risks are regularly updated in an Agile risk management plan to ensure effective risk management throughout the project. The following are a few of the project's potential risks for the Rams E-Caf project:

- **Human Error:** Admin's computer or devices that have access to the database of APC student's information in the Rams E-Caf might be left open due to negligence which could leave the data open for anyone in the area to access.
- **Security Vulnerabilities:** The initiative runs the risk of being exposed to security lapses or data loss, both of which might have dire repercussions.

- **Unforeseen Circumstances:** There is a chance that unanticipated events (such market shifts) could have an unexpected effect on the project. The payment gateway company goes inactive or loses connection in the middle of payment.

6.9.5. Risk Qualification and Prioritization

The project team will regularly review and update the risk record to make sure that risks are prioritized appropriately. The risks mentioned in the risk records were classified and evaluated using a probability-impact matrix. Risks that would have a significant effect on the project and a high possibility of occurring were given top consideration. Determine the probability and impact of each risk after analyzing potential risks related to Rams E-Caf business case. Following is an overview of the likelihood of risks and their effects on the project:

- Extreme: Risks that could seriously harm the project and have a very high possibility of happening.
- High: Risks that could have a big impact on the project and have a high chance of happening. The team must immediately address these risks and create mitigation plans for them.
- Medium: Risks that have an average chance of happening and a fair impact on the project. To prepare for these risks, mitigation plans should be created, and these risks should be continuously monitored.
- Low: Risks that have a small impact on the project and a low likelihood of occurring. Periodically monitoring these risks will allow for the development of mitigation plans in case that they occur.
- Negligible: Risks that have little chance of happening and little effect on the project. These dangers can be disregarded.

RISK ASSESSMENT MATRIX					
PROBABILITY IMPACT	RARE (1)	UNLIKELY (2)	POSSIBLE (3)	LIKELY (4)	ALMOST CERTAIN (5)
INSIGNIFICANT (1)	N	N	N	N	L
MINOR (2)	N	N	L	L	M
SIGNIFICANT (3)	N	L	L	M	H
DISASTROUS (4)	N	L	M	H	E
CATASTROPHIC (5)	L	M	H	E	E

Technical Risks:

- High probability and high impact
- Lack of technical expertise to develop the system

• Failure of the new system to integrate with the current systems

Resource Risks:

• Medium probability and medium impact
• Inadequate resources for the project
• Security Risks:
• Medium probability and medium impact
• Unauthorized access to the system

Based on the risk prioritization, the focus will be on developing mitigation strategies for extreme and high priority risks, while continuously monitoring medium and low priority risks. Negligible priority risks will be disregarded due to their low probability and minimal impact on the project. The risk qualification and prioritization will align with the Agile risk management plan, with regular reviews and updates to the risk register. Risks will be included in sprint planning to ensure the team's awareness and appropriate planning. The team will be encouraged to identify and report any new risks encountered during the project.

6.9.6. Risk Monitoring

The Rams E-Caf Agile Risk Management Plan offers a framework for actively tracking risks throughout the project. To do this, it is crucial to closely document the process, including defining the circumstances that might set off risks, and to regularly monitor risks during the project. The high-scoring risks will be incorporated into the project schedule, and the risk manager will be given responsibility for their monitoring. This will make it easier for the project manager to decide when hazards need to be closely monitored and when the risk manager should provide project team meetings with updates. The risk manager will oversee monitoring the risk trigger circumstances. The project manager will also make sure that the project team is informed of the risks that have been identified and their potential effects on the project. Any new risks or modifications to existing risks should be reported to the risk management by the project team so that they can be evaluated and given the appropriate level of priority. The project team will employ the agile risk management technique, which places an emphasis on adaptability and continuous development. The effectiveness of the risk management plan will be reevaluated as needed to ensure that the project's objectives and quality requirements are satisfied.

6.9.7. Risk Mitigation and Avoidance

The risk management strategy will be created by the project team based on the weight each risk is given. Identification and prioritization of potential hazards is the first step in risk mitigation and avoidance. Alternative plans, greater resources, or a change in project deadlines are possible preparation techniques for expected delays. The project team should identify the risks that are most likely to occur and have the greatest potential impact, and then develop methods to lessen or eliminate those risks. The project manager has the following main factors and choices to think about:

- **Resource Allocation:** The project manager must make sure the team has the necessary resources, including competence, abilities, and expertise, as well as access to tools and equipment, for the project to be effective and efficient. The project manager oversees making sure that the team has access to these resources to complete the project on schedule and within the allocated budget.
- **Risk Assessment:** To effectively estimate and handle potential hazards, the team should do a detailed analysis of them. Early in the project, the risk assessment should be finished, and the project manager should move quickly to identify and reduce any potential risks.
- **Contingency Planning:** The project team must develop backup plans for emergencies to be ready for potential dangers. The project manager is responsible for supervising the creation, validation, and testing of these strategies for each potential risk.
- **Agile Approach:** Risk management can be done in a flexible and quick manner by using the Agile methodology. The team's use of the Agile methodology, which permits continual risk management and the capacity for change, must be ensured by the project manager.
- **Communication:** The project manager must encourage open and transparent communication between the project team, clients, and stakeholders to reduce risks and avoid misunderstandings.

6.9.8. Risk Register

The risk registry, which will be kept up to date throughout the project, will include comprehensive explanations of each risk, its likelihood, potential effects, and any mitigating measures. To ensure that it appropriately reflects the project's current situation, the risk register will be constantly reviewed and updated. All interested parties will have access to the risk registry, which will be kept in a centralized location. This risk management approach emphasizes early and frequent risk discovery, collaborative risk management, and ongoing risk monitoring, which is frequently in line with the Agile methodology. The Rams E-Caf project team, Coderist, can lessen the effects and raise the possibility that the project will be successful by anticipating and resolving any hazards. The following criteria will serve as the basis for the risk register:

- Risk ID - Each risk will receive a special unique number.
- Risk Description - The risk event will be clearly and concisely described.
- Risk Category - Risks will be categorized as technical, organizational, or legal.
- Risk Owner - Will oversee monitoring and managing every risk.
- Probability - On a scale of 1 to 5, with 1 denoting the lowest chance and 5 denoting the highest, the likelihood of a risk occurring is evaluated.

RISK ID	RISK RANK	RISK	DESCRIPTION	CATEGORY	DESTINATION/ OWNER	PROBABILITY	IMPACT	STATUS
RID 001	1	Connection Risk	The risk of connection interruption in the middle of payment process done with the use of payment gateways inside the Rams E-Caf web application.	Technological	System Developer	Medium	High	In Progress
RID 002	2	Human Risk	The unsynchronized stocks/available food amount displayed in the web application and the physical food stall may cause confusion and conflict.	Technical	Project Lead	High	Medium	In Progress
RID 003	3	Technical Risk	The Rams E-Caf will not be accessed by the customers if the customers have no internet connection.	Technological	Project Lead	High	Low	In Progress

Table 6.9—2: Risk Register

6.10. Procurement Plan

6.10.1. Introduction

The Procurement Management Plan is an important component of the Rams E-Caf project, serving as guiding document for the successful procurement and asset of necessary resources. This plan outlines the specific procurement requirements and provides a comprehensive framework for managing the procurement process, from initial identification to contract closure. It aims to ensure that all procurement activities are conducted efficiently, on time, within the budget, and in accordance with the project's quality standards.

The primary objective of this procurement plan is to facilitate the seamless asset of goods, services, and resources required for the implementation of Rams E-Caf project. By defining the procurement strategy, this plan establishes a structured approach for selecting suppliers, evaluating proposals, negotiating contracts, and managing vendor relationships.

Within this plan, the types of items to be procured are identified, along with the associated justifications and procurement timelines. It also outlines the specific contract types to be utilized, considering factors such as the nature of the deliverables and the desired level of risk allocation. Furthermore, the plan highlights potential risks associated with procurement management and provides strategies for their identification, assessment, and mitigation.

Effective communication and coordination are essential for successful procurement, and this plan defines the roles, responsibilities, and communication channels for all stakeholders involved. It establishes clear guidelines for evaluating supplier proposals, ensuring compliance with project requirements, and conducting any necessary negotiations.

In addition, the plan addresses the integration of procurement activities with the project's scope, budget, and schedule. It identifies any constraints that may impact the procurement process, such as budget limitations, resource availability, or regulatory requirements. The plan also outlines how changes to the project's scope will be managed and how they may impact on the procurement schedule and resources.

Concessionaire management is also a crucial aspect of procurement, and this plan outlines the procedures for evaluating concessionaires, as well as monitoring and assessing their performance throughout the project lifecycle. It emphasizes the importance of maintaining strong relationships with the concessionaires and includes mechanisms for addressing any potential issues or disputes that may arise.

By implementing the Rams E-Caf Procurement Management Plan, the project team aims to optimize procurement activities, ensure the delivery of food in a timely manner, and achieve the project's objectives while adhering to cost and quality parameters. This plan will be regularly reviewed and updated to adapt to changing project needs and evolving market conditions, ensuring that procurement activities

remain aligned with the project's overall goals and objectives.

6.10.2. Procurement Risks

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adapt to changing project needs and evolving market conditions, ensuring that procurement activities remain aligned with the project's overall goals and objectives.

6.10.3. Procurement Risk Management

1. Identification of Procurement Risks

The first step in effective procurement risk management is to identify and assess the potential risks specific to the project, which is the development of an alternative online ordering system (Rams E-Caf) for Asia Pacific College. Some procurement risks to consider include:

- Cost Escalation: Unforeseen increase in the cost of procured goods or services, which mayimpact the project budget.
- Scope Changes: Changes in project scope that could affect the procurement activities, vendor commitments, and delivery schedules.
- Contract Disputes: Inadequate contract terms and conditions that may lead to misunderstandings, disputes, or unmet expectations.
- Legal Issues: Risks associated with non-compliance with legal and regulatory requirements, such as data privacy or import/export regulations.
- Market Risks: Risks arising from changes in market conditions, including availability, pricing fluctuations.

2. Risk Mitigation Strategies

Once procurement risks are identified, appropriate strategies should be developed to mitigate their potential impact. Some strategies should be developed to mitigate their potential impact. Some strategies from managing the alternative online ordering system project include:

- Contract Management: Develop comprehensive contracts with clear specifications, performance criteria, and dispute resolution mechanisms to mitigate contractual risks.
- Market Analysis: Continuously monitor market conditions, diversify the supplier base to mitigate risks associated with pricing fluctuations or supplier dependencies.
- Risk Monitoring: Implement a proactive risk monitoring system to identify emerging risks and establish clear escalation processes to address them in a timely manner.
- Legal and Compliance: Ensure that suppliers comply with relevant laws and regulations, especially concerning data privacy.
- Continuous Improvement: Regularly review and analyze procurement risk management processes, document lessons learned, and implement improvements to enhance future procurement practices.

3. Assignment of Responsibilities

Clearly define roles and responsibilities for procurement risk management. The procurement manager will have the primary responsibility for identifying, assessing, and managing procurement risks. The project manager and project team will provide input, support risk mitigation efforts, and monitor risk throughout the procurement process.

4. Communication and Reporting

Establish effective communication channels to facilitate timely reporting of procurement risks and risk mitigation activities. Regular updates on procurement risk management will be shared with the project manager, project team, and relevant stakeholders. A communication plan will ensure transparency and keep all stakeholders informed of any changes or development in procurement risk management activities.

5. Continuous Improvement

Promote culture of continuous improvement by documenting lessons learned from procurement risks and risk management activities. Share these insights with the project to enhance future procurement planning and execution. Conduct regular reviews of procurement risk management activities to identify areas for improvement and implement necessary changes.

By adhering to this procurement risk management guideline, we can minimize potential disruptions, maintain project timelines, and ensure the successful procurement of goods and services for the Rams E-Caf.

6.10.4. Cost Determination

The project Rams E-Caf, cost determination will be an important aspect of the procurement process. To ensure efficient and cost-effective procurement decisions, we will follow a comprehensive cost determination process. This process will involve gathering cost information from the concessionaires.

The project team will analyze all costs associated with the procurement process, including acquisition, implementation, customization, integration, and ongoing maintenance expenses. We will also consider any potential cost overruns and identify strategies to mitigate them. Cost will be one of the key factors in the decision-making process, ensuring transparency and fairness in supplier selection.

To facilitate effective cost determination, multiple stakeholders, including procurement managers, project managers, and finance experts, will collaborate to assess and monitor costs throughout the procurement lifecycle. Their expertise will help ensure accurate cost evaluation and alignment with the project budget.

To streamline the cost determination process, we will utilize standardized procurement templates and documents. These templates will ensure consistency in cost calculations and enable easy comparison of different vendor proposals. In addition, we will establish performance metrics and benchmarks for procurement activities, enabling us to evaluate the effectiveness of our cost determination process.

Regular monitoring and tracking of costs will be conducted throughout the project's duration. This will enable us to identify any variances or deviations from the budget and take timely corrective actions. By maintaining a proactive approach to cost management, we aim to deliver the online ordering system within the allocated budget.

The cost determination section of our procurement management plan will play a crucial role in ensuring the project's financial success. By diligently assessing costs, monitoring expenses, and making informed decisions, we can effectively manage our project's budget and maximize value for the organization.

6.10.5. Procurement Constraints

The following constraint must be considered as part of the Rams E-Caf project's procurement management process:

- Regulatory Compliance Constraints: The procurement process for the Rams E-Caf project must adhere to relevant regulatory requirements and compliance standards. This includes considerations such as data privacy laws, security regulations, and any specific industry regulations applicable to the online ordering system. Concessionaires must demonstrate their ability to meet these compliance requirements to ensure the project's legal and ethical adherence. These constraints related to regulatory compliance must be carefully incorporated into the procurement process to safeguard customer data, protect the organization's reputation, and ensure the project aligns with all applicable laws and regulations.

By addressing regulatory compliance constraints during the procurement process, the Rams E-Caf project can mitigate potential risks, avoid legal complications, and build a trustworthy and secure online ordering system that complies with all necessary regulations.

6.10.6. Contract Approval Process

The contract approval process for the Rams E-Caf project, an alternative online ordering system for Asia Pacific College, will involve a systematic approach to ensure efficient and effective contract approval. The process will align with the organization's policies and procedures and will include the following steps:

- Contract Initiation: The Project Manager will initiate the contract approval process by submitting a request for procurement to the Procurement Officer through the designated system or platform.
- Contract Planning: The Procurement Officer, in collaboration with the Project manager and relevant stakeholders, will develop a contract procurement plan. The plan will outline the specific requirements, evaluation criteria, and timelines for the procurement activities related to the Rams E-Caf project.
- Contract Review: The contract documents will undergo a comprehensive review by the legal department policies. The legal team will verify the accuracy and legality of the contract terms and make necessary revisions if required.
- Contract Approval: The contract documents will be submitted to the Contract Review Committee for approval. The committee, compromising representatives from the Project Management team, the Procurement Officer, and the Legal Department, will evaluate the contract based on the predetermined criteria such as cost-effectiveness, alignment with project objectives, risk assessment, and legal compliance. The Committee will provide recommendations to the Project manager for final approval.
- Contract Execution: Once the contract has been approved, the Procurement Officer, in collaboration with the Project Manager, will execute the contract. This includes signing the contract, issuing purchase orders or service agreements, and ensuring all necessary documentation is in place.
- Contract Monitoring and Performance Evaluation: The Project Manager, in coordination with the Procurement Officer, will actively monitor the concessionaires' performance throughout the contract duration. Regular assessments will be conducted to ensure compliance with contract terms, quality of deliverables, adherence to timelines, and overall vendor performance. Any deviations or issues will be addressed promptly to ensure project success.

The contract approval process will adhere to applicable laws, regulations, and organizational policies while ensuring transparency, fairness, and accountability. By following this structured process, the Rams E-Caf project can effectively manage its contract approval activities and foster successful concessionaire relationships.

6.10.7. Decision Criteria

For the Rams E-Caf project, an alternative online ordering system for Asia Pacific College, the contract review board will utilize the following decision criteria to evaluate and select concessionaires:

- Technical Capability: Concessionaires must demonstrate their technical skills and capabilities to successfully develop and implement the online ordering system. This includes expertise in relevant technologies, experience in developing similar systems, and the ability to customize the solution to meet the specific requirements of Asia Pacific College.
- Price: The proposed pricing by concessionaires will be considered as a factor in the decision - making

process. The vendor's pricing should be competitive and reasonable, considering the market rates for similar solutions and the value provided by the vendor's offering.

- User Experience: The vendor's solution should prioritize user-friendly interfaces and smooth navigation, ensuring a seamless and intuitive ordering experience for students, faculty, and staff of Asia Pacific College. The system should be designed to enhance convenience and efficiency in the ordering process.
- Integration Capabilities: The vendor should have the ability to integrate the online ordering system with existing systems and platforms used by Asia Pacific College, such as student information systems, payment gateways, and inventory management systems. Seamless integration will streamline operations and ensure data accuracy.
- Data Security: Concessionaires must demonstrate a strong commitment to data privacy and security. The proposed solution should include robust security measures to protect sensitive information, adhere to relevant data protection regulations, and provide secure transmission and storage of data.
- Concessionaire Support and Maintenance: The concessionaires should offer comprehensive support and maintenance services to ensure the smooth operation of the online ordering system. This includes timely response to issues, regular system updates and improvements, and the availability of technical support resources.
- Scalability and Flexibility: The concessionaire’s solution should have the capability to scale and accommodate the evolving needs of Asia Pacific College. It should be adaptable to future growth, technological advancements, and changing requirements.
- Stakeholder Feedback: The contract review board will consider feedback from relevant stakeholders, such as students, faculty, staff, and administrative personnel, who may have valuable insights on usability, functionality, and their specific requirements.
- Contract Terms and Conditions: The contract review board will carefully review the proposed contract terms and conditions, ensuring they align with the project's objectives, legal requirements, intellectual property rights, and any specific terms unique to Asia Pacific College. By engaging these decision criteria, the contract review board will make an informed and comprehensive assessment of vendor proposals and select the vendor that best meets the requirements and goals of the Rams E-Caf project.

6.11. Implementation Plan

6.11.1. Executive Summary

This transition out plan outlines the approach and strategies for smoothly transitioning the Rams E-Caf project, a web-based cafeteria management system, to the new team while ensuring continuity and minimal disruptions. The plan follows a phased transition approach, focusing on effective communication, knowledge transfer, staffing, and execution during the transition period.

The transition approach includes developing a communication plan to keep stakeholders informed, creating a detailed transition plan with timelines and activities, conducting knowledge transfer through documentation and training sessions, and gradually scaling down the project team's staff. The timeline is organized into execution and closeout phases, covering user training, go-live events, lessons learned documentation, file updates, formal acceptance, archiving, and a project closeout meeting.

The roles and responsibilities of the key individuals involved in the project, including the project manager, full stack developer, UI/UX designer, QA Tester, and stakeholders, are defined to ensure effective communication and collaboration.

The workforce transition aspect focuses on determining and communicating the timetable for workforce changes, including keeping current employees or transferring them to new contractors. The workforce will receive appropriate support and training throughout the transition process, and regular reviews of the workforce transformation strategy will be conducted.

During the transition period, tasks such as user training, go-live events, documenting lessons learned, updating files/records, gaining formal acceptance, archiving files/documents, and conducting a project closeout meeting will be performed.

The plan does not involve any existing contracts or subcontract agreements, and there is no government-furnished equipment involved. The ownership and transfer of incumbent-owned equipment will be clearly defined, and intellectual property considerations will be addressed through identification, evaluation of agreements, negotiation of new agreements, protection measures, and transfer procedures.

Regarding user accounts and passwords, an inventory will be created, password security measures will be implemented, and clear procedures for transition and disablement will be established, including a comprehensive table of user accounts.

Knowledge transfer will be facilitated through documentation and manuals provided by the project team, covering project overview, system architecture, functional requirements, and technical specifications.
The handover and acceptance process will follow a structured approach, including the completion of a transition plan, a formal handover meeting, and the resolution of outstanding issues. A formal acceptance document will be signed, and procedures for managing post-handover issues will be outlined.

6.11.2. Transition Approach

Overall Approach:

The approach for the transition out plan for the Rams E-Caf project will follow a phased transition approach to ensure continuity and minimize disruptions to ongoing operations. This approach will allow for a gradual and systematic transfer of knowledge, resources, and responsibility to the new team, reducing the risk of downtime and service interruption.

The transition approach for Rams E-Caf will include the following steps:

a) Communication Plan: A communication plan will be developed to ensure that all stakeholders are informed about the transition plan, timelines, and expectations. It will outline the communication channels and frequency of updates throughout the transition process.

b) Transition Planning: The transition plan will be developed in collaboration with the relevant stakeholders. It will include a detailed timeline of activities that need to be completed during the transition, such as system setup, data migration, testing, and training.

c) Knowledge Transfer: Knowledge transfer will be a key component of the transition plan. It will involve documenting processes, creating instruction manuals, and conducting formal training sessions for the new team members. This will ensure that they have the necessary skills and knowledge to support and maintain the Rams E-Caf system effectively.

d) Staffing: During the transition, the project team will gradually scale down their staff to a minimum level required to support knowledge transfer and transition activities. This will ensure a smooth transition while optimizing resource allocation.

Timeline:

The transition out plan for Rams E-Caf is organized into two main phases: execution and closeout. The execution phase includes user training and go-live events scheduled from [6/11/2022] to [11/21/2023]. The closeout phase encompasses activities such as documenting lessons learned, updating files/records, gaining formal acceptance, archiving files/documents, and conducting a project closeout meeting. These activities will be conducted from [6/11/2022] to [11/21/2023], as outlined in the detailed timeline.

Assumptions:

The following assumptions are made for the transition approach of Rams E-Caf:

E. The **Rams E-Caf: A Web-Based Cafeteria Management System** will be available onsite or via online meetings to actively participate in the transition process and receive knowledge transfer from the project team.

F. The project team will provide all necessary documentation, training materials, and instruction manuals to facilitate a smooth knowledge transfer to the **RAMS E-CAF** and new team members.

G. Asia Pacific college (or the appropriate organization) will provide all necessary equipment and software licenses required for the **Coderist team** to support the Rams E-Caf system.

H. The **Coderist team** will possess the requisite skills and knowledge to effectively support and maintain the Rams E-Caf system after the completion of the transition process.

6.11.3. Transition Team Organization

Roles and Responsibilities:

The content above outlines the roles and responsibilities of the key individuals involved in the Rams E-Caf project. Each role has specific responsibilities and is essential to the successful completion of the project. Understanding the roles and responsibilities of each team member is crucial to ensure effective communication and collaboration throughout the project's life cycle. By defining the roles and responsibilities, the project manager can set expectations, delegate tasks, and manage resources efficiently.

Role	Responsibility
Project Manager Corneliani Melo	The project manager is responsible for leading and managing the project team to achieve the project objectives within the constraints of time, budget, and scope.
Full Stack Developer Jamir Sia	The responsibility of a developer is to write, test, and maintain code that meets the project's requirements and is of high quality.
UI/UX Designer Nathan Allen Sinaguinan	Responsible for creating intuitive and visually appealing interfaces for digital products that meet user needs and business objectives.
QA Tester Joshua Cudal Isiah Jade Tutor	The responsibility of a documentation specialist is to ensure that all project documentation is complete, accurate, and up to date.
Stakeholders – Customers, Food Concessionaires, Client	Responsible for providing input, feedback, and making critical decisions related to the project to ensure its success.

Table 6.11—1: Roles and Responsibilities

6.11.4. Workforce Transition

A crucial component of Rams E-Caf: A Web-Based Cafeteria Management System's transition plan is the workforce transition. A smooth and efficient transition is necessary; hence it is vital to determining and communicating the workforce's timetable is crucial. The Transition Project Manager, a transition team member, will collaborate closely with both to decide the appropriate course of action by consulting the customer, the existing and new contractors, and both. for the employees to take. This can entail keeping present employees and transferring employees to either employing new personnel or a new contractor. Communication will be crucial in this process because the workforce must be informed of any modifications

in a polite and timely manner. Working with the Transition Project Manager to ensure that all employees are aware of their alternatives and work closely with management and HR to be given appropriate assistance during the transfer process. Additionally, all required instruction or re-education will be supplied to guarantee that the workforce has everything necessary to continue offering top-notch services throughout and after the transition period. Regular reviews of the workforce transformation strategy will be conducted, and updated as required to make sure the project is successfully finished on schedule and within the confines of the budget.

6.11.5. Workforce Execution During Transition

During the transition period of the Rams E-Caf project, there are several tasks that will need to be performed to ensure a smooth transition. These tasks include:

- User Training: The development and delivery of training materials to educate users on the new system. Training sessions will likely span over three days and encompass a combination of classroom instruction and hands-on training.

- Go Live: The actual launch of the new system, which requires thorough system testing and verification of its proper functioning. It is essential to ensure that all data has been migrated accurately before making the system available to users.

- Document Lessons Learned: This phase involves documenting valuable lessons learned throughout the project. It entails identifying areas where the team performed well and areas where improvements can be made. The documented lessons will serve as a resource for future projects, enabling the adoption of best practices moving forward.

- Update Files/Records: The team will be responsible for updating relevant files and records to reflect the completion of the project. This may involve archiving certain documents or updating contracts and agreements with new information.

- Gain Formal Acceptance: This phase focuses on obtaining formal acceptance from the customer, indicating that the transition has been successfully completed. The team will ensure that all deliverables have been met, and the customer is satisfied with the new system.

- Archive Files/Documents: Archiving of all project-related files and documents, including contracts, agreements, project plans, and other pertinent materials.

- Project Close Out Meeting: The final phase of the transition involves convening a project closeout meeting with all stakeholders. This meeting provides an opportunity to discuss the project,

highlighting successes and areas for improvement. It serves to address any outstanding issues and ensure their resolution.

6.11.7.1. Incumbent Owned Equipment

In the context of the Rams E-Caf project, it is crucial to establish a clear understanding of the equipment ownership and transfer process to ensure a seamless transition and prevent any potential conflicts or misunderstandings. The transition plan should explicitly identify the equipment that is currently owned by the incumbent and will remain in their possession.

If there are specific equipment requirements to support the customer's applications and services, the plan should outline whether the new contractor or the customer has the option to purchase or utilize this equipment. The plan should also include a well-defined timeline for the transfer of ownership, highlighting key milestones and any necessary documentation, such as bills of sale or transfer of ownership agreements.

Considering the **Rams E-Caf,** if there are any equipment needs for the successful operation of the Rams E-Caf, it is important to clearly identify the incumbent-owned equipment and determine whether the new contractor or the customer has the option to acquire or use it. This clarification will facilitate effective coordination among all stakeholders involved in the transition, ensuring that all necessary equipment is readily available and properly accounted for.

Collaboration between the project team and relevant stakeholders is key in guaranteeing a smooth equipment transition process. It is imperative for the project team to proactively communicate with all parties involved, confirming the availability and proper transfer of all required equipment. By addressing equipment ownership and transfer within the transition plan, potential conflicts or misunderstandings can be mitigated, thereby enabling a seamless handover, and minimizing any disruption to the Rams E-Caf operations.

6.11.7.2. Intellectual Property

During the transition process of the Rams E-Caf project's, careful attention must be given to the handling of intellectual property (IP) to ensure a seamless transfer of all pertinent documentation, supplier and subcontractor information, service agreements, and original designs or plans. Intellectual property entails various legal considerations and may involve the completion of non-disclosure agreements (NDAs) between the incumbent and the customer.

To ensure the proper handling of intellectual property during the transition, the following steps will be undertaken:

1. Identification of all relevant intellectual property:
   A comprehensive identification of all intellectual property associated with the project will be

conducted. This encompasses design documents, patents, trademarks, copyrights, software code, and any proprietary information or trade secrets.

2. Evaluation of contractual agreements:
   Existing contractual agreements pertaining to intellectual property ownership and transfer will be carefully reviewed and assessed to ensure compliance throughout the transition.

3. Negotiation of new agreements:
   If any gaps or inconsistencies are identified in the existing agreements, new agreements will be negotiated among the incumbent, new contractor, and the customer to ensure proper ownership and transfer of all intellectual property.

4. Protection of intellectual property:
   During the transition period, all necessary measures, such as non-disclosure agreements (NDAs) and other legal safeguards, will be implemented to safeguard intellectual property from unauthorized disclosure or use.

5. Transfer of intellectual property:
   Upon the successful completion of the transition process, all relevant intellectual property will be transferred in accordance with the contractual agreements in place. This may involve transferring the intellectual property to the new contractor, the customer, or retaining it with the incumbent, as specified in the contracts.

By following these steps, the Rams E-Caf Project can ensure a smooth and secure transition of all intellectual property related to the project.

6.11.7.3. User Accounts and Passwords

As part of our transition plan for the Rams E-Caf project, we recognize the importance of ensuring a seamless transfer of user accounts and passwords. The following steps and considerations outline how we will handle this aspect of the transition:

1. User Account Inventory:
   Begin by creating a comprehensive inventory of all user accounts and their associated privileges. This inventory should encompass both internal and external users, including system administrators, third-party vendors, and end users. It is important to identify and specify which accounts are no longer active or necessary for the system.

2. Password Security:
   Ensure robust security during the transition process by resetting or disabling all user passwords. This step is essential to prevent unauthorized access to the system and its data.
   Notify users before the transition and instruct them to change their passwords to a temporary one provided to them. The new contractor or system owner should enforce the creation of new, secure passwords by all users.

3. Account Transition and Disablement:

After addressing the inventory and password security measures, the next step involves identifying which accounts will be transitioned and which ones will be disabled.
Clearly outline the individuals responsible for overseeing the smooth transfer of accounts and passwords.
In cases where accounts are to be disabled, provide detailed procedures for promptly revoking access rights for terminated employees, contractors, or third-party vendors.

4. Table of User Accounts:
Include a comprehensive table in the transition plan listing all user accounts earmarked for transition or disablement.
This table should include important information such as the username, associated email address, and corresponding privileges or access rights.
Additionally, specify whether the account will be transitioned or disabled and provide any specific instructions for the transition process.

In summary, ensuring the seamless transfer of user accounts and passwords is a critical aspect of the **Rams E-Caf** 's property transition plan within the Rams E-Caf framework. By following a systematic approach that includes creating an inventory, implementing password security measures, establishing clear procedures for account transition and disablement, and providing a comprehensive table of user accounts, a smooth and secure transition can be achieved.

6.11.6. Knowledge Transfer

Documentation/Manuals:

- The project team and developer will provide documentation and manuals to the Rams E-Caf: A Web-Based Cafeteria Management System.
- The documentation will include a project overview, system architecture, functional requirements, technical specifications, and other relevant documentation that can help the Rams E-Caf team better understand the system and how it works.

6.11.7. Schedule

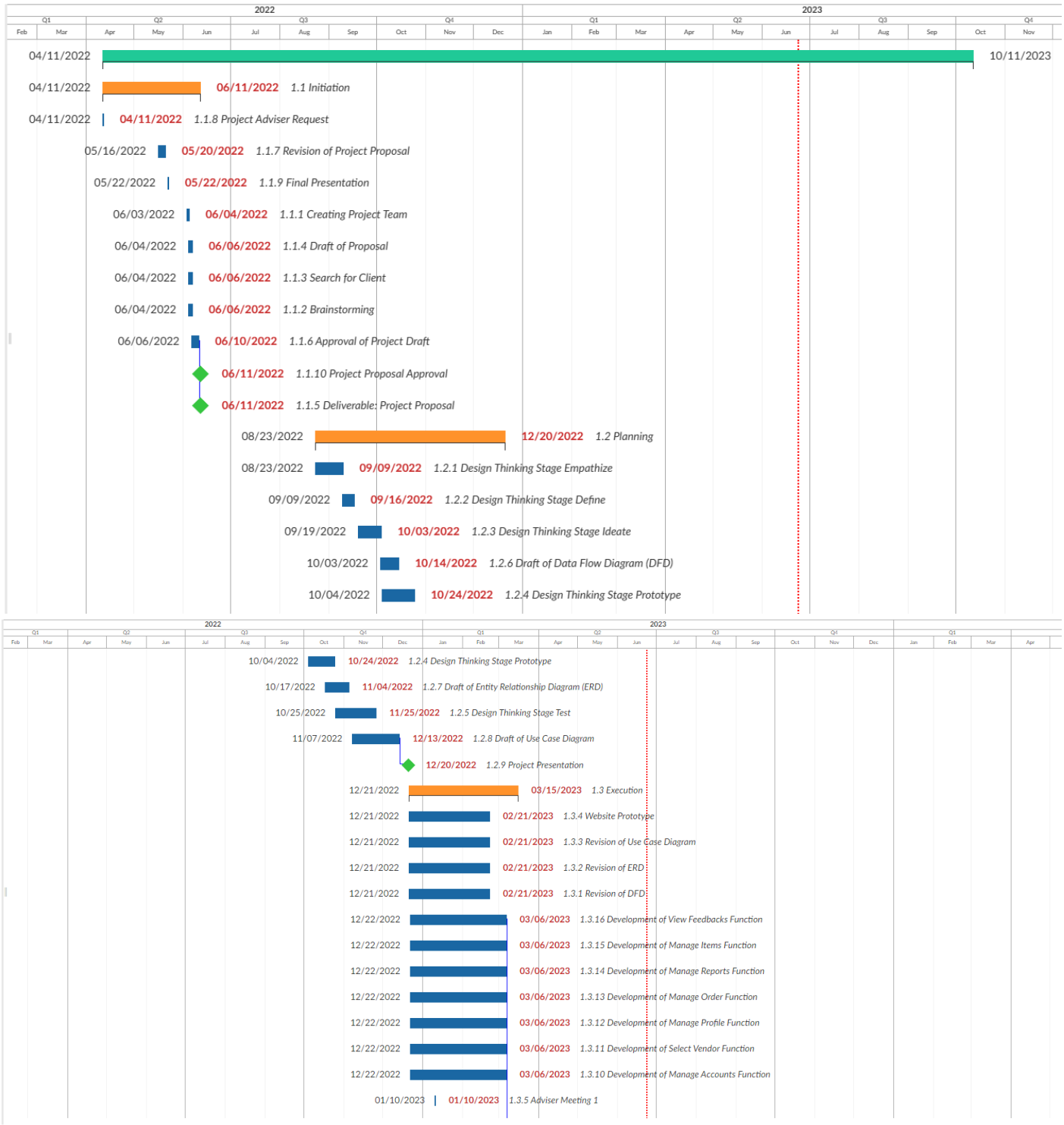

Figure 6.11—1: Transition Out Plan Schedule

6.11.8. Handover and Acceptance

The handover and acceptance process for the Rams E-Caf project will be conducted in a systematic and structured manner to ensure a smooth transition and satisfaction of all stakeholders involved. It will follow a clear roadmap that includes the completion of a comprehensive transition plan, scheduling a formal handover meeting, and addressing any outstanding issues or concerns.

Once the transition plan is finalized, encompassing all necessary documentation and deliverables, the project team will proceed to schedule a formal handover meeting. This meeting will involve the project sponsor and other relevant stakeholders who have a vested interest in the project's success.

The purpose of this meeting will be to present the completed transition plan along with all the required documentation and deliverables.

During the handover meeting, the project team will provide a detailed presentation of the transition plan, allowing the project sponsor and stakeholders to thoroughly review the materials. This review process will facilitate open discussions, enabling any outstanding issues or concerns to be addressed and resolved effectively. The aim is to ensure that all requirements and expectations have been met and that everyone involved is in agreement with the proposed handover.

Upon the resolution of any outstanding issues, the project sponsor and stakeholders will proceed to sign a formal acceptance document. This document will serve as tangible evidence that the handover process has been successfully completed. It will also include a comprehensive checklist of all the required deliverables and documentation, providing a clear record of what has been reviewed and approved by the stakeholders.

Additionally, the handover and acceptance section of the contract transition out plan will outline the procedures for managing any outstanding issues or concerns that may arise post-handover. This section may include a formal dispute resolution process or the implementation of corrective actions to address any identified deficiencies. The objective is to ensure that all stakeholders remain satisfied and that any ongoing challenges are appropriately managed and resolved.

By following this structured handover and acceptance process, the Rams E-Caf project team aims to provide a clear roadmap for the completion of the handover phase. This approach emphasizes effective communication, comprehensive review, and proactive resolution of any outstanding matters, ultimately contributing to a successful transition and stakeholder satisfaction.

7. List of Tables

8. List of Figures

8.1. Project Methodology

8.2. System Requirements Specifications

8.2.1. System Requirements for Development

SOFTWARE	SPECIFICATIONS
Operating System	Windows 7 or later (32/64 bit)
Visual Studio code	Version: 1.37.1
Browser	Chrome (Windows version: 80.0.3987.87, macOS version: 80.0.3987.87, Linux version: 80.0.3987.87, Android version: 80.0.3987.87, iOS version: 80.0.3987.88) Firefox (Standard Desktop version: 72.0.2, Extended Support version: 68.4.2, iOS Mobile version: 22.0, Android Mobile version: 68.4.2) Safari (macOS Laptops and Desktops version:13.0, iOS iPhone, iPad and iPod version: 13.0) Internet Explorer (Windows 10* version: 11.0, Windows version: 8.1, Windows RT version: 8.1, Windows version: 8, Windows RT version: 10.0, Windows 7 version: 11.0, Windows Vista version: 9.0, Windows XP version: 8.0)
XAMPP	Version: 7.4.1
Laravel	Version: 5.8
Github	Version 2.3.1

8.2.2. System Requirements for Deployment

SOFTWARE	SPECIFICATIONS
Operating System	Windows 7 or later (32/64 bit)
Browser	Chrome (Windows version: 80.0.3987.87, macOS version: 80.0.3987.87, Linux version: 80.0.3987.87, Android version: 80.0.3987.87, iOS version: 80.0.3987.88) Firefox (Standard Desktop version: 72.0.2, Extended Support version: 68.4.2, iOS Mobile version: 22.0, Android Mobile version: 68.4.2) Safari (macOS Laptops and Desktops version:13.0, iOS iPhone, iPad and iPod version: 13.0) Internet Explorer (Windows 10* version: 11.0, Windows version: 8.1, Windows RT version: 8.1, Windows version: 8, Windows RT version: 10.0, Windows 7 version: 11.0, Windows Vista version: 9.0, Windows XP version: 8.0)

8.3. Development Tools Specification

8.3.1. Development Tools Specification

HARDWARE	SPECIFICATIONS
	Processor - dual core @ 2.4 GHz (i5 or i7 Intelprocessor or equivalent AMD), 64 bits
RAM - 8 GB	
Free disk space - 1 GB	
With access to Wi-Fi or LAN	
Internet Connection	At least 3mbps
Atleast 4g/Lte connection	

8.4. WBS Dictionary

Level	WBS Code	Definition	WBS Code
1	1	Rams E-Caf, Cafeteria Management System	All work to implement a new Cafeteria Management System
2	1.1	Initiation	The work to initiate the project.
3	1.1.1	Creating Project Team	Working group to evaluate solution sets and make recommendations.
3	1.1.2	Brainstorming	Project Team discuss different problems that needs to be addressed
3	1.1.3	Search for Client	Search for a client that preceded over the problem
3	1.1.4	Draft of Proposal	Develop project proposal addressing problem and proposed solution
3	1.1.5	Deliverable: Project Proposal	Presentation of the project proposal is a requirement for the SNTSDEV Course
3	1.1.6	Approval of Project Draft	Project Draft got approved by course instructor
3	1.1.7	Revision of Project Proposal	Project team revises project proposal according to comments
3	1.1.8	Project Adviser Request	Project manager searches for a project adviser that fits the project
3	1.1.9	Final Presentation	Presentation of the final project proposal to ensure quality of project
3	1.1.10	Milestone: Project Proposal Approval	After revisions according to new comments, approval will start the planning phase for the project team
2	1.2	Planning	The work needed to design the system
3	1.2.1	Design Thinking Stage 1 Empathize	Project team will interview stakeholders
3	1.2.2	Design Thinking Stage 2 Define	Project team will determine the root cause
3	1.2.3	Design Thinking Stage 3 Ideate	Project team works on a solution for the problem
3	1.2.4	Design Thinking Stage 4 Prototype	Project team works on a basic prototype for designing functions
3	1.2.5	Design Thinking Stage 5 Test	Project team will have the stakeholders test the prototype
3	1.2.6	Draft of Data Flow Diagram (DFD)	Project team works on the DFD
3	1.2.7	Draft of Entity Relationship Diagram (ERD)	Project team works on the ERD
3	1.2.8	Draft of Use Case Diagram	Project team works on the Use Case Diagram
3	1.2.9	Project Presentation	Project team led by the project manager presents results of Design thinking and diagrams

2	1.3	Execution	The work needed for building, revision of designs, and documentations of the project
3	1.3.1	Revision of DFD	Project Team revises DFD
3	1.3.2	Revision of ERD	Project Team finalizes ERD
3	1.3.3	Revision of Use Case Diagram	Project Team finalizes Use Case Diagram
3	1.3.4	Milestone: Website Prototype	Project team, programmer designs basic website prototype
3	1.3.5	Adviser Meeting 1	Project team Meets with Project Adviser to better align project goals
3	1.3.6	Face to Face Client Meeting	Project team Meets with project client/sponsor and provide demo of the basic prototype for comments on functions
3	1.3.7	Midterm Presentation	Project team led by the project manager will present Diagrams and Documents
3	1.3.8	Project Revision	Project team will revise the diagrams and document, and website according to comments
3	1.3.9	Development of Manage Accounts Function	Work needed to provide the admin all access to everyone's accounts
3	1.3.10	Development of Select Vendor Function	Work needed to provide customers vendor selection
3	1.3.11	Work needed for customers to view their profile on the website	The developer created a profile dashboard system.
3	1.3.12	Work needed for food concessionaires to better manage their online orders	The developer created an interface for managing orders in the Rams E-Caf.
3	1.3.13	Work needed for the food concessionaires to better view reports	The developer created an interface to view reports
3	1.3.14	Work needed for the food concessionaires to better manage their food stocks	The developer created an interface for concessionaires to check and manage food stocks.
3	1.3.15	Work needed for the admin and food concessionaires to view feedback given by customers	The developer created an interface for admins to view feedback given by customers.
3	1.3.16	Working Web Application is a deliverable for the SCSPROJ course	The system was completed, and it was presented to the panelists.
3	1.3.17	Project Team meets with the project adviser for constructive criticism before the final defense.	The project advisor suggests what to emphasize during the defense.
3	1.3.18	Project Team led by the Project Manager will defend the project in front of a panel	The project was defended in front of the panelists.

3	1.3.19	Project team produced a working Cafeteria Management System	Project team presented a working system.
4	1.4	Work needed to complete all of the documentations	Project team is undergoing completion of documents.
4	1.4.1	Project team works on the Project Charter	Project team is undergoing completion of Project Charter.
4	1.4.2	Project team works on the Stakeholder Management Strategy	Project team is undergoing completion of Stakeholder Management Strategy.
4	1.4.3	Project Team works on the Business Case	Project team is undergoing completion of Business Case.
4	1.4.4	All documents are to be submitted to the project sponsor to be reviewed and approved	All document tags have been presented to sponsor for review.
4	1.4.5	Project Sponsor/Client reviews the documents mentioned	The project team presented the documents for review and verification of the project sponsor.
4	1.4.6	Milestone: Documents Signed/Approved	The project team's documents were approved by the project sponsor.
4	1.4.7	Deliverable: Submit Scope Management Plan, Cost Management Plan, Time Management Plan, Work Breakdown Structure, Work Packages Based	The team submitted the Scope Management Plan, Scope Management Plan, Cost Management Plan, Time Management Plan, Work Breakdown Structure, and Work Packages.
4	1.4.8	Project Sponsor Reviews Documents	The project sponsor reviews the documents for approval.
4	1.4.9	Milestone: Documents Signed/Approved	The project sponsors approved the project documents created by the team.
4	1.4.10	Deliverable: Submit Communications Management Plan, Implementation Management Plan, Risk Management Plan, Change Management Plan, Procurement Management Plan, Quality Management Plan	The project team submitted the required deliverables for the week 4 to 6 for the project management papers.
4	1.4.11	Project Sponsor Reviews Documents	The project sponsors review the documents for approval.
4	1.4.12	Milestone: Documents Signed/Approved	The project sponsors approved the project documents created by the team.
4	1.4.13	Project Defense	The team presented the project management papers to the panelists.
5	1.5	Deployment	The project team starts to deploy the Rams E-Caf system.

5	1.5.1	Acquire Hardware Requirements	The team will find the needed hardware required for the system testing.
5	1.5.2	System Testing	The project team will have the ITRO of APC test the system for the project deployment.
5	1.5.3	Project Deployment	The project team completely deployed the system.
5	1.5.4	Project Hand out	The project team will hand out the project system to the client.
6	1.6	Closure	The project team starts for the closure stage of Rams E-Caf system.
6	1.6.1	Audit Procurement	The project team starts to procure the hardware requirements.
6	1.6.2	Document Lessons Learned	The project team starts to document the lessons that have learned from the whole project.
6	1.6.3	Update Files/Records	The team starts to update the files and records of Rams E-Caf.
6	1.6.4	Gain Formal Acceptance	The team starts to request formal acceptance from the client.
6	1.6.5	Archive Files/Documents	The team starts to archive files and documents of the project.