Procurement Request Tracking System

1 Executive Summary

In the administrative operations of Xavier University, various departments frequently submit request forms to the Central Procurement Unit (CPU) for procurement of goods and services. However, tracking the status of these requests can be challenging and time-consuming for both the requesting departments and the CPU. Our project aims to develop a website/web application that streamlines the request tracking process for Xavier University departments. This system will provide a centralized platform where users can submit, monitor, and manage their procurement requests efficiently.

Who: Various departments within Xavier University and the Central Procurement Unit (CPU).

What: Develop a website/web application to streamline the procurement request tracking process.

When: Throughout the duration of the project, with a goal of completing within a specific timeframe (e.g., 3 months).

Where: Within Xavier University's administrative operations.

Why: To address the challenges and inefficiencies associated with tracking procurement requests, improve communication and visibility, and enhance overall efficiency in the procurement process.

How: By creating a user-friendly web application that serves as a centralized platform for submitting, monitoring, and managing procurement requests. This will involve gathering requirements from stakeholders, designing and developing the application, integrating it with existing systems, conducting testing and quality assurance, and providing training and support for users.

2 Background

2.1 History

Xavier University has a long-standing commitment to excellence in education, research, and service. As the university has grown and evolved over the years, so too have its

administrative processes, including procurement. Understanding the importance of efficient procurement practices in supporting its mission, Xavier University has continually sought ways to improve its procurement processes to better serve its academic community.

In the current procurement process at Xavier University, departments initiate the procurement cycle by filling out request forms, detailing their specific needs and requirements. Once submitted, the Central Procurement Unit (CPU) receives and records these requests, ensuring all necessary information is documented accurately. Subsequently, the requests undergo a series of approval stages, involving various departments across the university. Each department reviews the request for alignment with budgetary constraints, compliance with university policies, and suitability for the intended purpose. Upon receiving approval from all relevant departments, the CPU proceeds with vendor selection, manual process of contacting them through telephone ,negotiation, and fulfillment of the procurement request. With this, the manual process of determining the status of procurement requests by individually contacting each department is incredibly time-consuming.

Overall, to address communication challenges between departments and the CPU, Xavier University invested in technology solutions to streamline the procurement request process. The development of a website/web application aimed at providing a centralized platform for submitting, monitoring, and managing procurement requests marked a significant milestone in the university's procurement modernization efforts. By leveraging technology, Xavier University aimed to improve communication, enhance transparency, and streamline processes to drive efficiencies in procurement operations.

2.2 Requirements

Xavier University operates within a dynamic environment characterized by evolving regulatory requirements, technological advancements, and changing stakeholder expectations. As a leading institution of higher learning, Xavier University must continuously adapt to meet the needs of its students, faculty, staff, and community stakeholders. In this environment, efficient procurement processes play a crucial role in supporting the university's academic mission and operational effectiveness.

To realize the business opportunity, Xavier University must focus on the development and implementation of a streamlined website/web application that addresses the identified challenges in procurement. This entails leveraging technology to centralize procurement operations, improve visibility into request status, facilitate communication

between departments and the CPU, and automate manual processes. The website/web application should be intuitive, user-friendly, and scalable to accommodate future growth and changes in procurement needs.

Furthermore, the realization of this opportunity requires collaboration and buy-in from key stakeholders across the university, including department heads, procurement staff, IT personnel, and senior leadership. By aligning efforts and resources towards the common goal of enhancing procurement processes, Xavier University can capitalize on the opportunity to improve efficiency, transparency, and accountability, ultimately enhancing its competitive position and supporting its mission of academic excellence.

2.3 Solution

Xavier University currently faces inefficiencies and challenges in its procurement processes due to the lack of a centralized and streamlined system for tracking procurement requests. Departments frequently encounter difficulties in monitoring the status of their requests, leading to delays, miscommunications, and uncertainties in the procurement process. This fragmented approach results in manual tracking methods, communication gaps with the Central Procurement Unit (CPU), and limited visibility into the progress of requests. As a consequence, the university experiences inefficiencies, missed deadlines, and potential risks associated with procurement delays. To address these issues and capitalize on the opportunity to improve operational efficiency, Xavier University seeks to implement a comprehensive Procurement Request Tracking System.

To address the business problem and capitalize on the business opportunity, Xavier University will implement a comprehensiveProcurement Request Tracking System.

User-Friendly Web Application:
Develop a user-friendly web application accessible to all departments and the Central Procurement Unit (CPU). The interface will be intuitive, featuring clear navigation, easy-to-use forms, and a dashboard for tracking procurement requests.
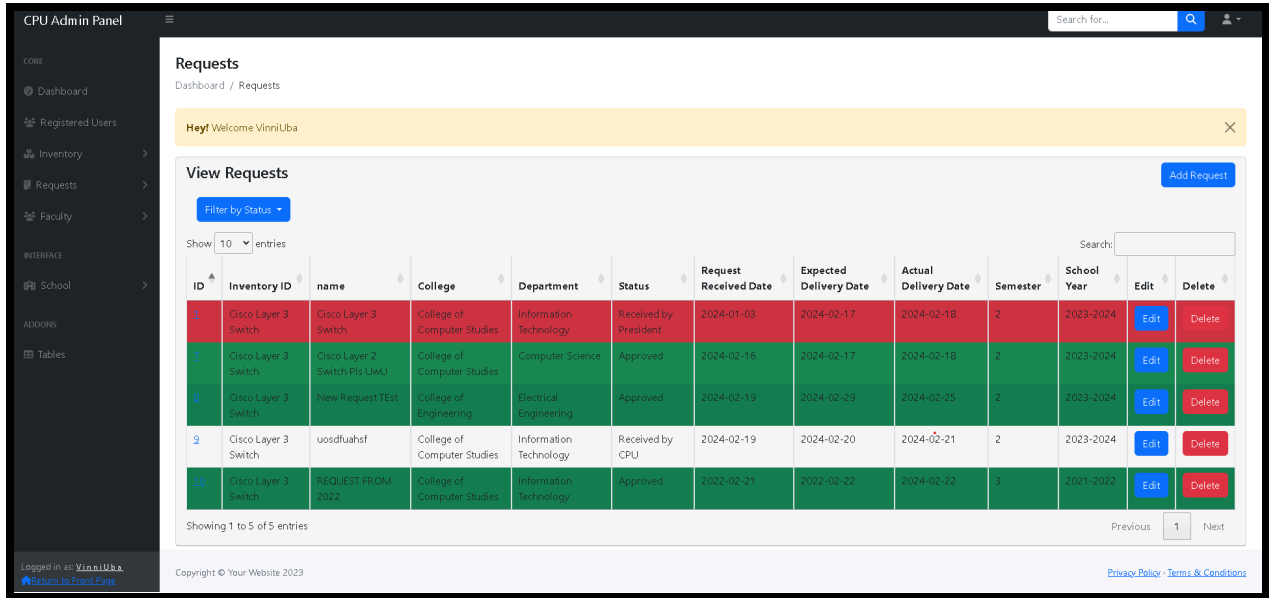
Status Tracking Module:

Implement a status tracking module within the system to provide real-time updates on the status of each procurement request. Users will be able to monitor progress, view pending tasks, and anticipate delivery dates.
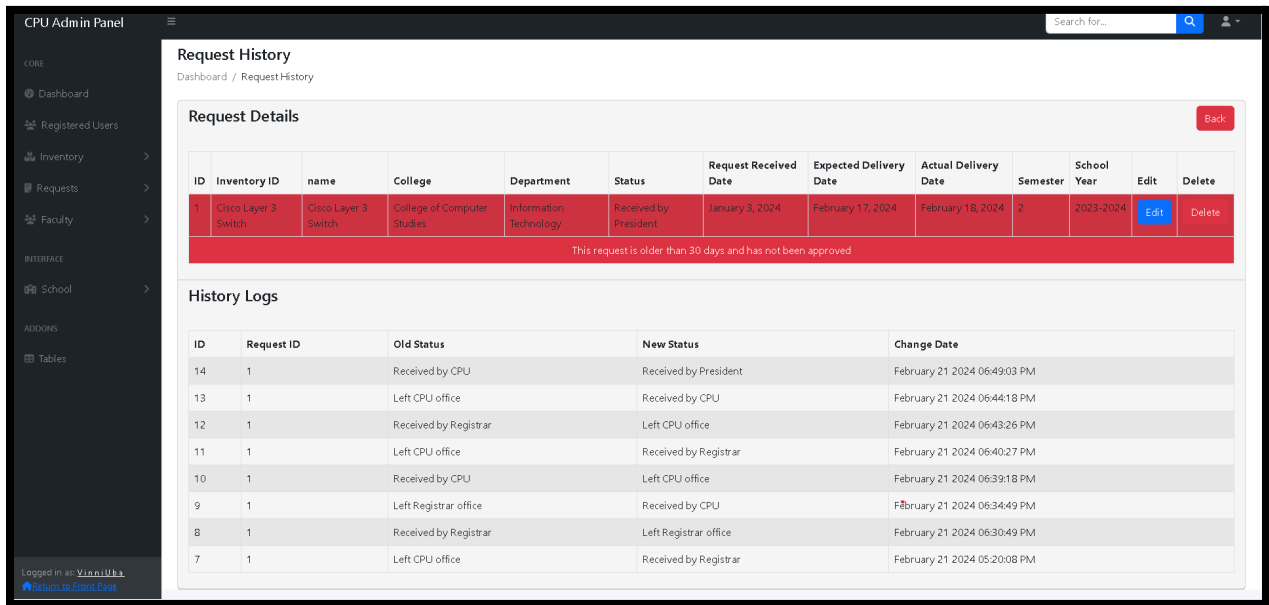
Automated Notifications System:

Integrate an automated notifications system that sends notifications to users at key stages of the procurement process. Notifications will include updates on request submission, approval status, fulfillment, and warnings for overdue requests.
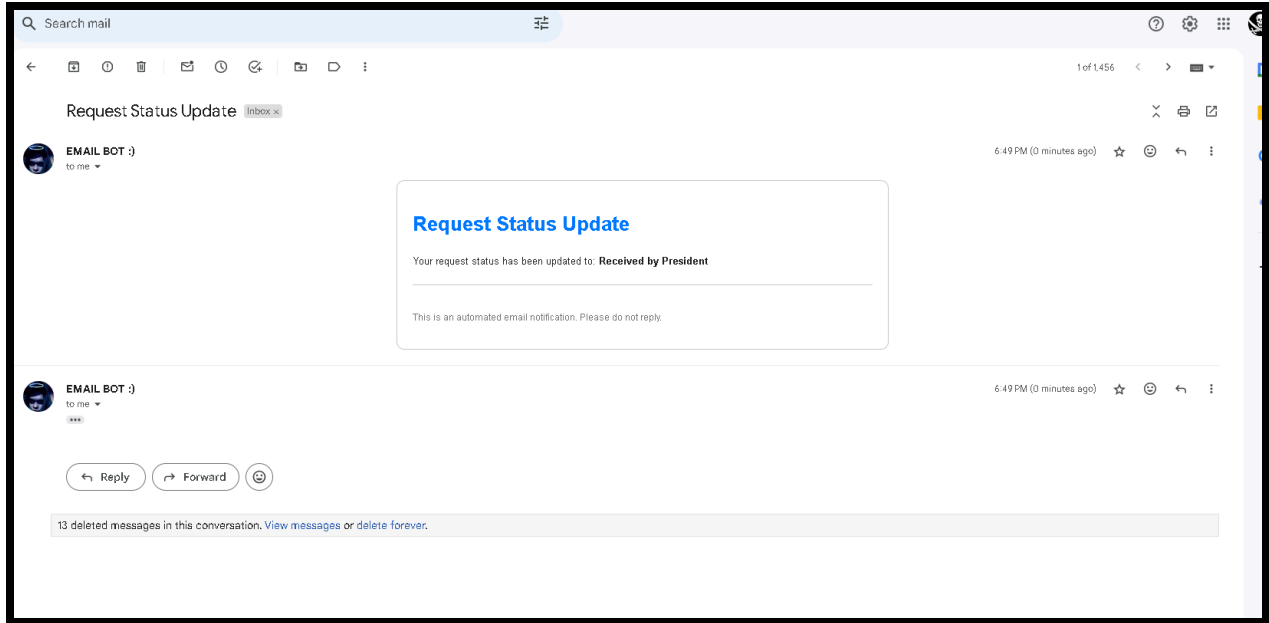
Secure Access Control:

Ensure secure access to the system with role-based permissions. Users will have access only to the information relevant to their department and requests, protecting sensitive data and maintaining confidentiality.

Centralized Database:

Utilize a centralized database to store all procurement-related data securely. The database will facilitate data management, retrieval, and reporting, ensuring accuracy and consistency in procurement records.

Training and Support:

Provide comprehensive training and support to users to ensure they can effectively utilize the system. Training materials, user guides, and ongoing support will be available to assist users in navigating the system and maximizing its benefits.
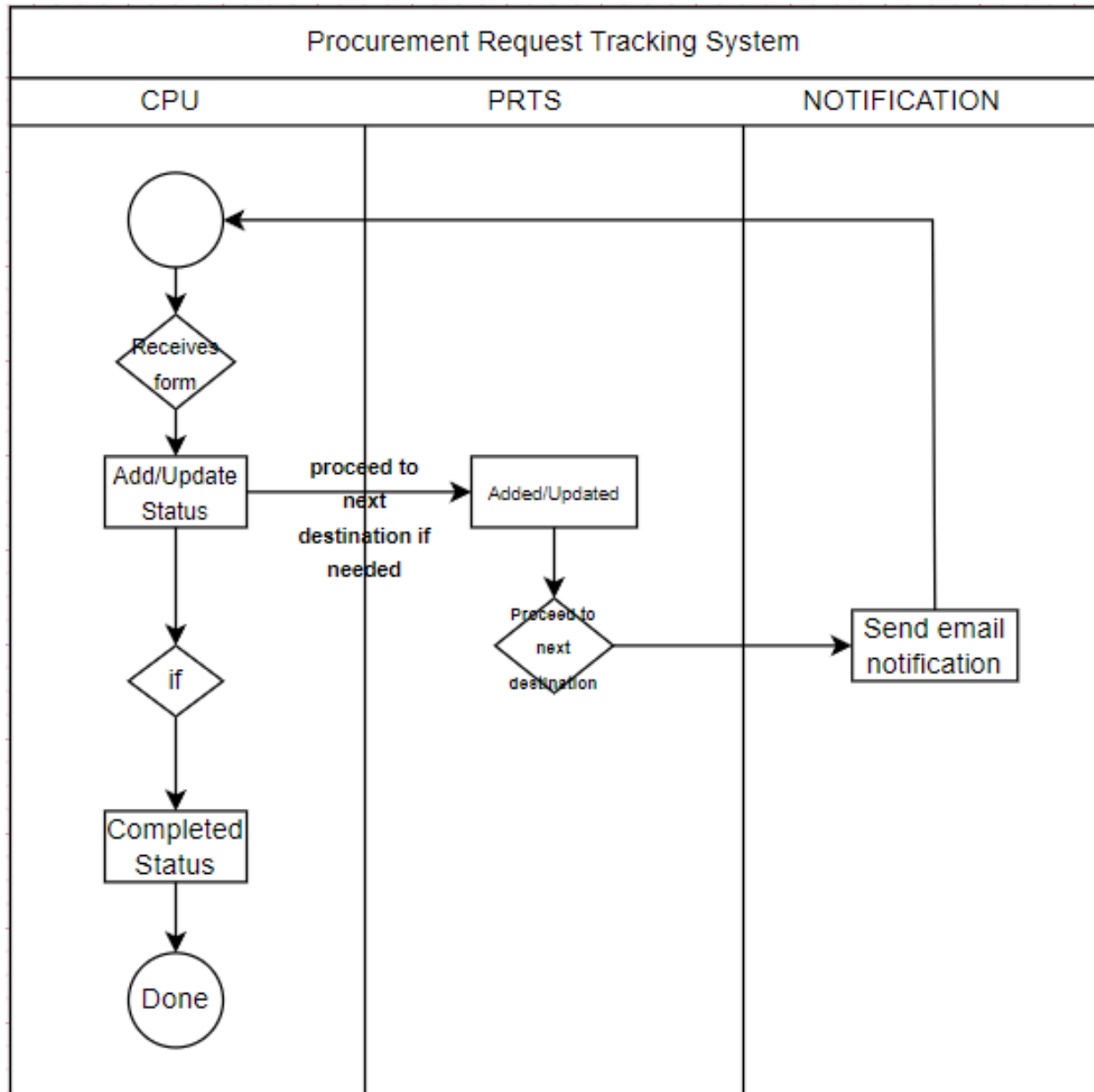
Out of scope:

- Procurement of hardware or software infrastructure required for system deployment (e.g., servers, networking equipment).
- Customization of the solution beyond the defined scope of features and functionalities.
- Ongoing maintenance and support beyond the initial implementation phase.

Approach to Delivery:

The solution will be delivered through a phased approach, consisting of the following stages:

- Requirements Gathering: Collaborate with stakeholders to gather and document requirements, including functional and non-functional requirements, user roles, and system integrations.
- Design and Development: Design the architecture and user interface of the system based on the gathered requirements. Develop the web application using agile development methodologies to ensure flexibility and adaptability to changing needs.
- Testing and Quality Assurance: Conduct comprehensive testing of the system to ensure functionality, usability, security, and performance. Address any issues or bugs identified during testing.
- Deployment: Deploy the Procurement Request Tracking System on Xavier University's servers and integrate it with existing systems and databases. Ensure data migration and system interoperability.
- Training and Support: Provide training sessions and user documentation to familiarize stakeholders with the system and its functionalities. Offer ongoing support to address any questions or issues that may arise during the transition period.

A swimlane diagram is a visual tool used to illustrate the steps and responsibilities within a process or workflow. In the context of the Procurement Request Tracking System at Xavier University, a swimlane diagram can depict the various departments and entities involved in the procurement process, along with their respective roles and interactions. Here's a simplified swimlane diagram representing the procurement request workflow:

Procurement Request Tracking System

CPU	PRTS	NOTIFICATION

Receives form

Add/Update Status

proceed to next destination if needed

Added/Updated

if

Proceed to next destination

Send email notification

Completed Status

Done

The swimlanes represent different entities involved in the procurement process, CPU Department, PRTS, and the Notification module. Each step in the process is represented within the appropriate swimlane, indicating the responsibilities of each entity. The arrows depict the flow of the procurement request from submission to approval/rejection, notification, status monitoring, and finally, receipt of goods/services. Responsibilities are clearly delineated, allowing for a visual understanding of the entire procurement workflow and the interactions between departments and the system.

3 General Objective

"To develop and implement a Procurement Request Tracking System for CPU office within three months, aimed at improving efficiency, transparency, and accountability in procurement processes."

Specific:

- Design and develop a user-friendly web application for Procurement Request Tracking System.
- Implement features for request submission, status tracking, automated notifications, and secure access control.
- Integrate the PRTS with existing systems and databases for data interoperability.

Measurable:

- Completion of all development tasks and functionalities according to the project plan.
- Successful deployment of the PRTS on Xavier University's servers.
- Training of all relevant stakeholders on how to effectively use the system.

Action-Oriented:

- Develop and test the PRTS functionalities iteratively to ensure alignment with stakeholder requirements.
- Deploy the PRTS following a phased approach, with regular updates and feedback loops.
- Provide comprehensive training sessions and user documentation to facilitate adoption and usage of the system.

Realistic:

- The project aims to improve procurement processes within a realistic timeframe of three months.
- Resources, including personnel and technology infrastructure, are available and allocated appropriately to support the project objectives.
- The scope of the project is defined and manageable within the given constraints.

Time-Based:

- The project will be completed within three months from initiation, with milestones and deadlines established for each phase of development, testing, deployment, and training.
- Regular progress updates and checkpoints will be conducted to ensure adherence to the timeline and identify any potential delays or issues.

3.1 Specific Objectives

Develop and Deploy Procurement Request Tracking System:

- Specific: Design and develop a user-friendly web application with features for request submission, status tracking, automated notifications, and secure access control.
- Measurable: Complete the development and testing of the PRTS software within two months.
- Action-Oriented: Utilize agile development methodologies to iteratively build and test PRTS functionalities.
- Realistic: Allocate sufficient resources and expertise to ensure timely development and deployment.
- Time-Based: Aim to deploy the PRTS on Xavier University's servers by the end of the second month of the project.

Provide Training and Support to Stakeholders:

- Specific: Develop and deliver comprehensive training sessions and user documentation to familiarize stakeholders with the PRTS functionalities.
- Measurable: Conduct training sessions for all relevant stakeholders within the third month of the project.
- Action-Oriented: Create user manuals, video tutorials, and interactive training materials to facilitate learning and adoption of the PRTS.
- Realistic: Ensure adequate resources and support are available to address any questions or issues that arise during the training sessions.
- Time-Based: Aim to complete all training sessions and provide ongoing support by the end of the third month of the project.

3.2 Deliverables

Project Deliverables

Title	Description	Notes
1st month	A user-friendly web application developed to streamline procurement processes. Features include status tracking dashboard, automated notifications, and secure access control	- Development of frontend and backend components for the web application. - Design and implementation of user interface elements, including forms and dashboards. - Integration of authentication and authorization mechanisms for secure access control. - Implementation of backend logic for processing procurement requests and sending automated notifications. - Testing of all functionalities to ensure reliability and usability.
2nd month	Reports documenting the testing and quality assurance processes conducted throughout the development of the PRTS. This includes test plans, test cases, test results, and bug tracking reports.	- Develop comprehensive test plans outlining the testing approach, objectives, and scope for each phase of testing. - Create detailed test cases specifying the steps to be executed, expected results, and criteria for pass/fail. - Execute test cases systematically to validate the functionality, usability, security, and performance of the PRTS. - Document test results, including any deviations from expected outcomes and defects identified during testing. - Utilize bug tracking software to log and prioritize identified defects, including information on severity, status, and resolution.

3rd month	Comprehensive training materials and user documentation created to facilitate user adoption of the PRTS. This includes user manuals, video tutorials, FAQs, and interactive training materials.	• Development of user manuals covering system functionalities, workflows, and best practices. • Creation of video tutorials demonstrating key features and usage scenarios of the PRTS. • Compilation of FAQs addressing common questions and troubleshooting issues. • Design and development of interactive training materials, such as quizzes and simulations, to reinforce learning. • Delivery of training sessions for all relevant stakeholders, including departmental staff and CPU personnel, to ensure effective utilization of the PRTS.

3.3 Timeframe

PROCESS	FEB				MARCH				APRIL			
	20	24	25	28	1	6	7	31	1	15	16	30
Planning	█	█										
Design Process			█	█								
Front-end development			█	█	█							
Back-end development							█	█	█			
Deployment						█	█	█				
Provide Training										█	█	█

3.4 Resources

Project Resources		
Type	**Quantity**	**Notes**
Computers	4	Required for each department handling the web app
Test Environment	/	Necessary for setting up a testing environment to conduct testing and quality assurance activities.
Server	/	Needed for hosting the Procurement Request Tracking System(PRTS) software and supporting database.
Manpower	2	Required number of developers for this web app project

3.6 Authorization

I, _____, hereby authorize the initiation of the project titled Procurement Request Tracking System. Based on the thorough review of the Project Proposal, including the analysis of business problems, opportunities, objectives, deliverables, resources, timeframe, and justification, I believe that this project aligns with the strategic goals and objectives of the Central Procurement Unit.

I acknowledge that the proposed solution addresses critical business challenges faced by the Central Procurement Unit and presents an opportunity to enhance operational efficiency, transparency, and accountability in procurement processes. I also recognize the importance of the specified timeframe for delivering the project and understand the resource requirements outlined in the proposal.

As the Project Sponsor, I commit to providing the necessary support, resources, and guidance to ensure the successful execution and completion of the project. I understand that my role includes providing strategic direction, making key decisions, resolving issues, and removing obstacles that may impede progress.

I authorize the project team to proceed with the initiation phase and to begin work on the project in accordance with the Project Proposal. I am confident in the capabilities of the project team and look forward to seeing the successful implementation of the proposed solution.

Prepared by:

Approved by: