**SERVICE MANAGEMENT SYSTEM  
LOGISTIC**   
(**PROCUREMENT, WAREHOUSING, ASSET MANAGEMENT, PROJECT MANAGEMENT, VENDOR PORTAL, FLEET MANAGEMENT, AUDIT MANAGEMENT, VEHICLE RESERVATION, MRO**)

A Project Study  
Presented to the IT Project Evaluation Committee  
Bestlink College of the Philippines  
Quezon City, Philippines  
in Partial Fulfillment of the Requirements for the Degree  
Bachelor of Science in Information Technology  
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**Abstract**

**Introduction**

In year of modernization Logistic was still in manual process based on the personnel the grouped interviewed. The process of transmitting and documenting the item in the vehicle transition was manual. In this case Logistic is not in easy way process due to some information of materials are not secured and the records are sometimes misplaced and even the if data is lost, it leads to management misinterpretation because formerly, management relied solely on paper documentation, which had no backup in case of disaster. Problem the management will be case-hardened in assessment those records. So, the group proposed system that is reliable to make easy way on how to manage the Logistic on the company, instead of manual process. The groups developed a system which can generate reports and can save a lot of information and even track those records by using search engine references.

**Methodology**

Agile methodology enables us to do multiple tasks simultaneously and provides a strategic technique, the sprint-by-sprint cycle method, to complete the task. Agile methodology allows us to plan and arrange all of the tasks that must be completed. This strategy encouraged our team to be more accountable for completing things on schedule. This strategy enabled us to be self-sufficient in our research and provided us the confidence to present our project without fear. We have learned to work together to make our Service Management System a successful endeavor.

**Result**

As a result, the project team has successfully provided what the user’s needs to do on a daily task. The project team has set up system to provide the logistics system with the necessary and perform the daily work in Service Management. Logistic is needed to manage the services and monitor the transaction; however, this system is still underway and there are a lot of things to improve.

**Discussion**

The project team set up the system which would benefit both the Service Management System (SMS) Logistic and the Tech-Trendz Human Resource. Agile methodology helps to reduce the time required for the development phase of the project system. As a result, the development team has developed a system with user-friendly and full functionality.

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# Project Management

## Business Case

### Executive summary

The Service Management System is a huge modular system that covers almost all aspects of a service-oriented corporation. In order to have a service-management mindset, an organization must understand the level of process maturity required to become a service-oriented corporation.

Logistics is the detailed process of planning and carrying out an operation. When it comes to business, that process refers to the flow of work from beginning to conclusion in order to meet customer and organizational expectations. Logistic Management assists the company in lowering costs and managing customer service more effectively.

#### Issue

Many people's health, as well as their employment, was harmed by the pandemic. COVID-19 had a severe influence on employment in the Philippines, with the majority of employees reporting job suspensions, reduced hours and compensation, and others being compelled to take unpaid leave. Human Resources at Tech-Trendz will be able to assist them in quickly finding new career prospects.

#### Anticipated Outcomes

The employment agency will be able to cut transaction processing time by using the suggested project since it will have direct access to collected data, track documents, audit, and manage reservations with the swipe of a hand. Reports are also available at any moment. Because records would be immediately accessible in the system, keeping them will no longer be a burden for the employee. Transactions will be easier to complete, and the workload will be reduced.

#### Recommendation

The team can develop and build a better strategy to provide more job possibilities by examining the present employment challenges that many individuals are encountering during this pandemic. It also allows us to develop this suggested Tech-Trendz Human Resources, which will lead to a more effective and efficient employment search.

### Business case analysis team

The business case analysis team consists of five (5) members that are prior set by the Scrum Master. In this section, these individuals are responsible for the development of this project. The names, roles, and descriptions are as follows:

|  |  |  |
| --- | --- | --- |
| **Name** | **Role** | **Descriptions** |
| Mr. Khristian Hosena | Project  Sponsor | * Serves as an ultimate authority / * responsibility for the project * Provides strategic direction and * guidance * Approves changes to scope * Identifies and secures funding * Makes business / approaches * decisions for the project * Participates in key activities * Makes resources available * Approves work products, address * issues, and approve change * requests |
| Barcinal, Marc Julius | Scrum Master | * Professional in the field of project management. * Responsible for planning, procurement and execute of a project. * Undertaking that has a define start and a defined finish |
| Cabiling, Romel | Backend Developer | * Responsible for database development * Responsible for integration of the whole system |
| Malang, Eunique Lambert | System Designer / Frontend Developer | * Responsible for the designing of the UI/UX of the system * Responsible for the branding of the project |
| Ramos, Ronalyn | Frontend Developer | * Responsible for the UI/UX of the system |
| Lesigues, Fridalyn | Documentation / Frontend Developer | * Responsible for the UI/UX of the system * Responsible for the documentation of the project |

Table 1: Business case analysis team

### Problem definition

#### Problem statement

This includes retaining highly skilled workers while improving their performance, intellectual capability, and skill development. Under the current circumstances, employee performance was poorly controlled and monitored. Because they rely solely on recommendations with no supporting evidence, Logistics is having difficulty evaluating employees on a regular basis in order to update their performance and quality of work. Furthermore, the institution is at odds with providing proper pay raises to their employees for the hard work they put in for the organization. Another issue is that the institution is having difficulty selecting individuals for a critical job post that requires immediate filling, necessitating a thorough review to ensure that institutions have what they require.

#### Organizational Impact

The Tech-Trendz Human Resource will have a wide range of effects. The next section explains how the project's implementation will affect the organization, tools, processes, hardware, software, and roles and responsibilities.

Tools: The existing manual system will no longer be used as the project has been implemented. Authorized users will be required to be trained for a new useful tool of system project.

Processes: The Service Management System will make the process easier, for it will lessen the workload and the consuming time for processing the collection of such vehicles the accuracy of the record will be more maintainable and manageable.

Hardware/Software: The Service Management will be required to have the workstation that will meet the needs of the following:

**Hardware Minimum Requirements:**

* + - * + 166 MHZ Pentium IV or equivalent
        + 2 GB memory

**Software minimum requirements:**

* + - * + Latest Browser

**Internet Service Provider:**

* + - * + 10 Mbps
        + Unlimited Connections

#### Technology Migration

To effectively transition existing data to a web-based system project, a phased approach has been developed to discuss day-to-day processes.

A high-level overview of the stepwise strategy is provided below.

**Phase I:** Developed a web-based system that will be installed to the workstation and will be tested by our team.

**Phase II**: All Logistics staff will undergo training about the new web-based system implemented

### Project Overview

#### Project description

By developing a web-based logistic system, the Tech-Trendz Logistic system will support the Tech-Trends Human Resource department. This project is a single tool with numerous functions that will be used. With a single hand movement, the technology in this project will be able to collect and calculate payment. Any date can also be used in reports. Instead of coding it, this project allows you to configure and set up various sorts of records every transaction by hand, making it easier to transact and reducing workload.

#### Goals and objectives

Several Logistics aims and objectives are directly supported by the Developed Project. The table below shows which business goals and objectives Service Management supports and how it does so.

|  |  |
| --- | --- |
| **Business Goal/Objective** | **Description** |
| Timely and accurate reporting of data | The system will enable for real-time and accurate reporting of all data gathering, as well as a summary of the applicant's data collection. |
| Improve Data Integrity | Changes to Organization Data and Permissions The system will keep track of all transactions. |
| Reduce workload | The system will need to be set up and configured in order to reduce the workload in each transaction. |
| Improve processing time | Rather than writing in processing, the system will just click as you process. |

Table 2: Goals and Objectives

#### Project performance

The table below lists the project's key resources, processes, or services, as well as their performance metrics.

|  |  |
| --- | --- |
| **Key Resource/Process/Service** | **Performance Measure** |
| Reporting | The web-based system will generate and print all collection and deposit in a desired month of date |
| Software | Easily to use and transact |
| Transaction log | All transaction done by the user will be logged on the system |
| Staff Resources | Reduce some workloads and less time in doing the workload as several functions will now be automated |

Table 3: Project Performance

#### Project assumption

**PROCUREMENT**

Procurement is used for purchasing and acquiring assets and services to be used within the company.

**WAREHOUSING**Warehousing is used for storage and listing of the inventory used within the company.

**ASSET MANAGEMENT**

Asset Management is used for managing and monitoring the assets within the company.

**PROJECT MANAGEMENT**

Project Management is used for creation of new projects within the company.

**VENDOR PORTAL**

Vendor portal is used for finding cost friendly suppliers or contractors and is responsible for posting biddings online.

**FLEET MANAGEMENT**

Fleet Management is used to management of fleets or vehicles of any size and type for available and ready to use.

**VEHICLE RESERVATION**

Vehicle Reservation is used for reservation of a vehicle and transportation for the customer to use.

**MAINTENANCE, REPAIR AND OVERHAUL**

Maintenance Repair and Overhaul is the one that monitors and responsible for all vehicles to be used whether if it is working or not.

**AUDIT MANAGEMENT**

Audit Management is the one responsible for audit reports and transactions done within the company.

#### Project constraints

The following are some potential logistics constraints. More assumptions will be identified and included as project planning progresses.

**Time Constraints:** Refers to the project completion schedule, which includes deadlines for each milestone and the availability of each team member to complete each task.

**Information Constraints:** Due to the pandemic and government protocol, to limit the people outside. The project team's resources to support the project are limited.

#### Major project milestones

The project milestones identified at this time are included in the table below. The project milestones and their target completion dates will be amended, adjusted, and finalized as needed to establish the baseline timeline as project planning progresses and schedules are identified.

|  |  |
| --- | --- |
| **Milestone/Deliverable** | **Target Date** |
| Project Charter | TBA |
| Project Plan Review and Completion | TBA |
| Project Kick-Off | TBA |
| Sprint 1 | TBA |
| Sprint 2 | TBA |
| Sprint 3 | TBA |
| Sprint 4 | TBA |
| Sprint 5 | TBA |
| Sprint 6 | TBA |
| Sprint 7 | TBA |
| Sprint 8 | TBA |
| Close Out/Project Completion | TBA |
| Project Charter | TBA |

Table 4: Milestone and Deliverables

### Strategic Alignment

|  |  |  |
| --- | --- | --- |
| **Plan** | **Goals/Objectives** | **Relationship to project** |
| Logistic Strategic Plan for 2022 Information Management | Adopt the systematic approach that will benefit organization and its department effortless. | The new improve business process that will allow Logistic Admin and staffs to work efficiently |
| Logistic Strategic Plan for 2022 Transactions | Improve keeping record and make fast transactions | This project will keep records of supplies, vehicle and the transaction information and real time management information in hospital. |

Table 5: Strategic Alignment

### Cost-benefit analysis

The table below summarizes the cost and savings actions of the Logistic project, as well as their descriptions and the costs or savings associated with them throughout the year. The net savings for the project year are shown at the bottom of the chart.

|  |  |  |
| --- | --- | --- |
| **Action** | **Description** | **First Year Cost** |
| Development of the Project | The ongoing process of development of the project | ₱ 20,000.00 |
| Purchase web server and domain | initial investment for development of LOG 2 Project | ₱ 3,000.00 |
| Subscribe in Internet provider | he system will require to stay connected on the internet to function | ₱ 10,000.00 |
| Estimate Cost: ₱ 33,000.00  : | | |

Table 6: Cost-benefits Analysis

### Approvals

The signatures of those listed below indicate that they understand the purpose and content of this Business Case. By signing this document, you indicate that you approve of the proposed project outlined in this business case and that the next steps in creating a formal project in accordance with the details outlined herein may be taken.

|  |  |  |  |
| --- | --- | --- | --- |
| **Approver Name** | **Title** | **Signature** | **Date** |
| Enrico Pineda | Project Owner |  |  |
| Jorge Lucero | Process Improvement |  |  |

Table 7: Approvals

## Project charter

## Stakeholder Strategy

### Introduction

The Tech-Trendz Stakeholder Management Strategy will identify and classify the project's stakeholders. This will aid in determining the stakeholders' impact and interests. It will also be aware of the methods and techniques for approaching or communicating with stakeholders. As a result, the project will be able to openly receive feedback on its development.

### Identify stakeholders

A meeting of the Tech-Trendz Scrum Team will be held in order to identify project stakeholders. The principal project team and the project sponsor will attend this meeting. Managers, department personnel, the development team, and any other employee who may be touched by the Tech-Trendz Human Resource are examples of stakeholders.

The following factors will be used to establish whether or not a person is a stakeholder:

1. Will this project have a direct impact on the person or their organization?
2. Will the person or their organization be in a position to affect the outcome?
3. Will the individual have an impact on project resources (materials, personnel, and funding)?
4. Will the individual possibly gain from the project?
5. Stakeholders are defined as those who match one or more of the aforementioned criteria.

### Key stakeholders

The scrum team will identify the key stakeholders who will be affected by this project and have the most effect. The persons who are most important to the project's success are called key stakeholders. Once the key stakeholders have been identified, the project manager will devise a strategy to collect their ideas, concerns, and other forms of involvement in the project.

The scrum team will include key stakeholders in every project meeting by analyzing. Sessions or any other deliverables are effective. It will be accomplished via communicating with important stakeholders. Ensure that all complaints are addressed.

### Stakeholder analyst

The goal of this analysis is to determine the level of influence or role of the stakeholders. It is to understand the optimal level or method for each important stakeholder's participation. Stakeholders will be classified by the scrum team according to their organization or department. The project team will use a power/interest matrix to categorize all stakeholders after they have been identified.

to show the probable impact of each participant on the project The project team will also construct a stakeholder analysis matrix based on this analysis, which will show each stakeholder's issues, level of involvement, and management plan.

# Project Planning

## Project management plan

### Introduction

Managing a project, regardless of its size or scope, is a difficult task. There's a lot that can go wrong, from planning the smallest details to meeting clients' ever-changing requests to delivering projects on schedule. When you break the project into reasonable stages, each with its own goals and deliverables, it’s easier to govern the project and the quality of the product. If you are in a position where you are required to manage projects for your firm and are feeling overwhelmed, start learning the basic stages of the project life cycle phases, according to a project management handbook. A project management life cycle, according to the Project Management Institute's (PMI) PMBOK Guide (Project Management Body of Knowledge), consists of five distinct phases that combine to turn a project idea into a workable product: initiation, planning, execution, monitoring, and closing.

### Project management approach

The Scrum Master, Barcinal, Marc Julius, is hereby authorized to interface with management as needed, negotiate for resources, delegate responsibilities within the project framework, and communicate with all project team members and management as needed to ensure the project's success and timely completion. All project and company management strategies will be examined and approved by the product owner. The scrum team will report on their progress throughout the project. The Project Manager is also in charge of keeping the scrum team informed about their progress and project results.

### Project scope

**Procurement**

Is the process of purchasing products or services and is frequently in reference to company spending. Preparation, solicitation, and payment processing are all aspects of business procurement, and they frequently include numerous departments within an organization.

**Warehousing**

**Asset Management**

**Project Management**

To create a specific plan for a project. To create a timeline for the project plan. The project schedule is being monitored.

**Vendor Portal**

It's also known as a Supplier Portal; it's a web-based platform that allows you to engage with vendors and suppliers in real time. The vendor portal allows you to find a supplier for a common supply that the company requires.

**Fleet Management**

Is a management strategy that helps businesses to arrange and coordinate work vehicles in order to increase efficiency and lower costs. Fleet management includes following and recording mechanical diagnostics, albeit it is most typically used for vehicle tracking.

**Audit Management**

Recording transactions and adhering to internal control policies and procedures, as well as ensuring that board-approved audit directives are followed. It makes the audit workflow and collaboration process more efficient and organized.

**Vehicle Reservation System**

To reserve a vehicle from fleet management that the supplier selects, and to track where the vehicle goes and where it arrives.

**Maintenance Repair and Overhaul**

Have schedule maintenance to organize the task and preventive maintenance has able to monitor the mileage in order to set change oil for vehicle. System has repair history to review the previous transaction of maintenance or repair

### Milestone list

The important milestones for the Service Management System are listed in the table below. Only significant project milestones such as project phase completion and gate review are included in this table. Smaller milestones may not be seen on this table, but they are incorporated in the project schedule and work breakdown structure. If a scheduling delay threatens a milestone or delivery date, the project manager must be notified as soon as possible so that proactive measures can be taken to avoid date slips. Any approved changes to these milestones or dates will be communicated to the project team by the project manager.

|  |  |  |
| --- | --- | --- |
| Milestone | Description | Date |
| Requirements Gathering | All Requirements for Tech-Trendz must determine to base design upon | TBA |
| Designing | To design for the software. This the theoretical | TBA |
| Developing | All coding completed resulting in software prototype. | TBA |
| Testing and Debug | All functionally tested and all identified errors corrected | TBA |
| Transition of system | Completed software and documentation transitioned to operations group to begin production. | TBA |

Table 8: Milestone List

### Schedule baseline and WBS

The WBS for the Tech-Trendz is made up of work packages that have been assigned a specific amount of time to complete by the scrum team. With input from functional managers and research from previous projects, work packages were designed through close collaboration among scrum team members and stakeholders. All work packages for the Tech-Trendz are listed in the WBS Dictionary. These consist of Tasks, resources, and deliverables are all included.

The WBS and Project Charter were used to create the Tech-Trendz timeline, which included input from all project team members. The project sponsor reviewed and approved the timetable. The Scrum Master will keep track of the schedule. Any planned timetable adjustments will require the project sponsor's permission. The impact of the modification on the schedule, cost, resources, scope, and risks will be determined by the Scrum Master and team. If the Project Sponsor approves the change, it will be implemented by the Scrum Master, who will update the schedule and related documentation, as well as notify all stakeholders.

### Change management plan

The following steps comprise the Tech-Trendz Human Resource change control process for the project and will be utilized on the Logistic project:

Step #1: Identify the need for a change (Any Stakeholder)

*Requestor will submit a completed change request form to the project manager.*

Step #2: Log change in the change request registers (Scrum Master)

*The project manager will maintain a log of all change requests for the duration of the project.*

Step #3: Conduct an analysis of the change (Scrum Master, Scrum Team, Requestor)

*The scrum master will conduct an evaluation of the impact of the change to cost, risk, schedule, and scope.*

Step #4: Submit change request to (Scrum Master)

*The scrum master will submit the change request and analysis to all the project team and stakeholders*.

Step #5: Scrum team and stakeholder decision

*The Scrum Master will discuss the proposed change and decide whether it will be approved based on all submitted information*.

Step #6: Implement change (Scrum Master)

When the changes approved by the project owner, team, and stakeholders. The Scrum master will update and set new guidelines project documentation as necessary to ensure any changes are clear to the team and stakeholders. If a change is approved by the scrum team and stakeholders, the project manager will update and re-baseline project documentation as necessary as well as ensure any changes are communicated to the team and stakeholders

### Communication Management Plan

### Cost management plan

The Scrum Master will be in responsible of identifying and tracking project costs throughout its lifecycle. The Scrum Master will present and audit the project's cost and timeline at the review. The Scrum Master is in charge of cost variances and providing to the Project Sponsor solutions for getting the project back on track using earned value estimates. The logistical Project Sponsor has full financial and decision-making authority, including the ability to adjust the budget.

### Procurement Management Plan

All procurement activities under this project will be managed by the Scrum Master. All procurement actions up to ₱5,000 must be approved by the Scrum Master. The Project Sponsor must approve any procurement actions that exceed this amount.

### Project scope management plan

The Project Sponsor must formally acknowledge the project's final product. This permission is conditional on a thorough review of all project documentation, testing results, early access study findings, and the completion of all tasks/work packages and product functionality.

The Scrum Master, stakeholders, or any scrum team member can suggest scope adjustments. All change requests will be sent to the Scrum Master, who will assess the project's requested scope.

### Schedule management plan

The Service Management System will use PHP and Laravel to generate project schedules. The Work Breakdown Structure established the timeline and deliverables (WBS). All activities have been described in order to identify specific tasks that must be completed in order to complete all deliverables.

Following the creation of the schedule, the project team will review it, and any assigned project tasks will be tracked. The work package assignments, durations, and timetable for the project must be agreed upon by the project's team and resources. When this is completed, the project sponsor will evaluate and approve the schedule, and it will become baseline. In accordance with Service Management organizational standards, the following milestones must be identified for all project timelines:

* + - * Completion of scope statement and WBS
      * Base lined project schedule
      * Approval of final project budget
      * Approval of roles and responsibilities
      * Requirement’s definition approval
      * Project implementation
      * Acceptance of final deliverable

### Quality management plan

Logistic project team members will collaborate on quality management from individual work packages to final project deliverables. The team must ensure that everything meets an acceptable standard. The Logistics quality roles and responsibilities are as follows. The Project Owner is in charge of verifying all quality standards for the Logistic as well as ensuring that all project activities and deliverables meet the specified and approved quality standards.

Quality control is the responsibility of the Project Manager. The Project Manager is in charge of carrying out the Quality Management Plan and ensuring that all activities, processes, and documentation are included. The Project Manager will monitor all deliverables to ensure that acceptable quality standards are met. The Project Manager is also in charge of informing and monitoring the project team and stakeholders about all quality standards.

The project team and stakeholders will work with the Project Manager to develop acceptable quality standards. They will also ensure that all quality standards are met and that any quality issues are reported to the Project Manager.

The Logistics project meets delivery objectives and expectations while also establishing a structured procedure for measuring and accepting quality standards. To ensure that all project outputs meet authorized quality standards, a quality control project will require the use of tools and procedures.

If changes are proposed and approved, the Project Manager is also responsible for informing the project team of the changes and revising all project plans and documentation.

### Risk management plan

The method we used to identify and manage risks for this project has had a significant impact on its development. The scrum team will put effort in identifying risks associated with this project, as pooling all of its resources and recognizing risks early on allows the project team to design a strategy for addressing the risks.

After obtaining data, we run into roadblocks in developing the project, which determines the project's risk. To address and find a solution, the scrum master will assess it and convey it to the scrum team and stakeholders.

### Risk Register

This project's Risk Register is a chronicle of all recognized risks, their likelihood and impact on the project, their type, mitigation method, and when the risk will occur. The register was prepared during the project manager's inaugural project risk management meeting. The project team identified and classified each risk at this discussion. In addition, the team assigned a score to each risk based on the likelihood of it occurring and the potential consequence. The Risk Register also includes each risk's mitigation method as well as when the risk is most likely to occur. Based on the risks and timelines indicated, Each risk has been included to the project plan in the risk register. The scrum master will appoint a risk manager at the appropriate period in the plan—prior to when the risk is most likely to occur—to ensure adherence to the agreed-upon mitigation strategy.

### Staffing Management Plan

### Cost Baseline

All budgeted expenditures for the successful completion of the Logistic Project are included in the cost baseline.

|  |  |  |
| --- | --- | --- |
| **Project Phase** | **Budgeted total** | **Comments** |
| Planning | ₱3,000 | Includes work hours for all scrum team members for gathering requirements and planning project. |
| Design | ₱3,000 | Work hours for project team members for work on conceptual design |
| Coding | ₱10,000 | Includes all work hours for coding |
| Testing | ₱5,000 | Includes all work hours for testing (including beta testing of Web-Based System |
| Transition and Closeout | ₱10,000 | Includes all work hours for transition to operations and project closeout |

Table 9: Cost Baseline

### Quality Baseline

## Risk management plan

### Introduction

When a business starts a new project, it enters the world of uncertainty that comes with developing new and unique products or services. As a result, these companies take risks, which are essential in any risky endeavor.

The objectives of a risk management strategy are to set the stage for the project team to identify risks and develop solutions to minimize or eliminate them. However, before the risks can be identified and managed, various basic project items must be completed. The strategy explains how to deal with the risks posed by these variables.

### Top three risk

|  |  |  |
| --- | --- | --- |
| **Risk Factor** | **Risk Probability** | **Risk Management Action** |
| Security Risk | High | * Secured a front and back end system |
| Technical Risk | Medium | * The team will provide a backup in the system, |
| Operational Risk | Low | * One of the team must provide at * least a data to access the * resources needed in * documentation as well as the * system |

Table 10: Top Three Risks

### Risk management approach

The scrum team identified, categorized, and positioned the numerous risks as part of the risk management strategy we employed for this project. The work timetable incorporated the most likely and substantial effect dangers to ensure that the demoted hazard supervisors could implement the moderation reaction at the proper time. Risk managers will make public statements about them. Risks are assigned every other week during project group meetings, but only if the meetings include their risk time frame. When the project is over, the project manager will break down each risk at the conclusion phase.

### Risk identification

### Risk Qualification ad Prioritization

Each risk was assigned a likelihood and impact factor to help the team keep track of the important risks document. This activity gives the Scrum Master the ability to prioritize risks based on their impact on the project. The project manager used a probability and effect diagram to aid the team in relocating each risk to an acceptable point on the graph. After setting the risks and their impact and arranging them in the relevant area on the chart, the Scrum Master continues the process to the next level: risk mitigation / avoidance strategy.

### Risk Monitoring

High impact risks are included in the project plan when the project is presented to each risk to ensure that they are regularly monitored. Each risk is assigned to a risk manager at the appropriate point in the project timeline. During weekly scrum team meetings, each risk manager conveys the risk status; however, only hazards related to the current time period will be covered. Throughout the duration of this project, risk monitoring will be a continuous activity.

As the project deadline approaches, the scrum master will ensure that the relevant risk manager provides status updates, such as risk status, trigger identification, and risk response outcomes documentation.

### Risk Mitigation and Avoidance

The scrum master is in charge of developing a response to each risk identified by the project team. As new hazards are discovered, they are certified, and the team develops risk avoidance and mitigation strategies. These hazards are included in risk registration and project planning so that they may be tracked and managed as soon as possible.

Within the restrictions of time, scope, and budget, the project's risk will be managed and controlled. The impact of all identified dangers on this triple limitation will be evaluated. To ensure compliance with these restrictions, the scrum master will identify the best strategy to respond to each risk with the help of the project team.

### Risk Register

This project's Risk Register contains a list of all identified hazards, their probability and impact on the project, the classification to which they belong, a mitigation plan, and when the risk will occur. The scrum master led the initial project risk management meeting, which resulted in the establishment of the register. The scrum team identified and articulated each danger throughout this conversation. Aside from that, the team simply assigned a score to each risk based on its likelihood and potential consequences. The Risk Register also includes a mitigation strategy for each risk, as well as an estimate of when the risk is most likely to occur. Based on the identified risks and timelines in the risk register, each risk has been included to the project plan.

## Scope management plan

### Introduction

Scope Management is in charge of the project's scope framework. This part organizes the scope management strategy, roles and responsibilities related to project scope, system scope definition, verification and management procedures, scope management control, and the project's work breakdown structure. Each project communication that relates to the project's scope must be completed to adhere to the Scope Management.

This is the outcome of a study that conceived, built, and tested replacement software to improve hospital transaction and report creation. This includes the type of package, all programming and writing, as well as package testing and validation.

### Scope management approach

The Scrum Master sole significant job for this project is scope management unit planning. The scope statement, work breakdown structure (WBS), and WBS reference all establish the project's scope. The Scrum Master, Sponsor, and Stakeholders can create and approve project scope documentation that includes deliverable quality checklists and work performance measurements. The Scrum Master, stakeholders, or any member of the project team can initiate planned scope revisions. All requests for changes to unit planning must be presented to the Scrum Master, who will assess the requested scope change. The project manager can update all project documentation and convey the scope change to any or all stakeholders when the modification panel and the project sponsor approve scope revisions. The project sponsor is responsible for accepting the final word in project deliverables and scope, based on feedback and input from the project manager and stakeholders.

### Roles and responsibilities

|  |  |  |
| --- | --- | --- |
| **Name** | **Role** | **Descriptions** |
| Mr. Khristian Hosena | Project  Sponsor | * Serves as an ultimate authority / * responsibility for the project * Provides strategic direction and * guidance * Approves changes to scope * Identifies and secures funding * Makes business / approaches * decisions for the project * Participates in key activities * Makes resources available * Approves work products, address * issues, and approve change * requests |
| Barcinal, Marc Julius | Scrum Master | * Professional in the field of project management. * Responsible for planning, procurement and execute of a project. * Undertaking that has a define start and a defined finish |
| Cabiling, Romel | System Analyst | * Responsible for system development * Responsible for maintenance of the whole system |
| Malang, Eunique Lambert | System Designer / Frontend Developer | * Responsible for the designing of the UI/UX of the system * Responsible for the branding of the project |
| Ramos, Ronalyn | Business Analyst / Frontend Developer | * Responsible for the UI/UX of the system |
| Lesigues, Fridalyn | Documentation / Frontend Developer | * Responsible for the UI/UX of the system * Responsible for the documentation of the project |

Table 11: Scope Management Approach Roles and Responsibilities

### Scope definition

The scope of this project was defined using the comprehensive need's assortment approach. First, a comprehensive review of the company's current package applications to support worker and user input. The scrum team used this data to develop a project needs and desires management system, as well as the required documentation matrix for the new package application's goals. The project description and deliverables, as well as feedback from specialists in package design, technical support, programming, and business applications, were produced and approach to support the intended system selection.

### Project scope statement

The scope of this project was determined using a comprehensive wants collection process. First, staff and user comments were used to conduct a thorough evaluation of the company's current package applications. The scrum team built the project based on information, and now they want documentation, management, and documentation for what the new package application should perform. The project description and deliverables were created to assist in the gathering of needs and material consultants in package design, technical support, programming, and business applications technique and input this method of expert opinion provided comments on the primary effect of providing a brand-new package platform from which the company can improve their documentation.

### WBS

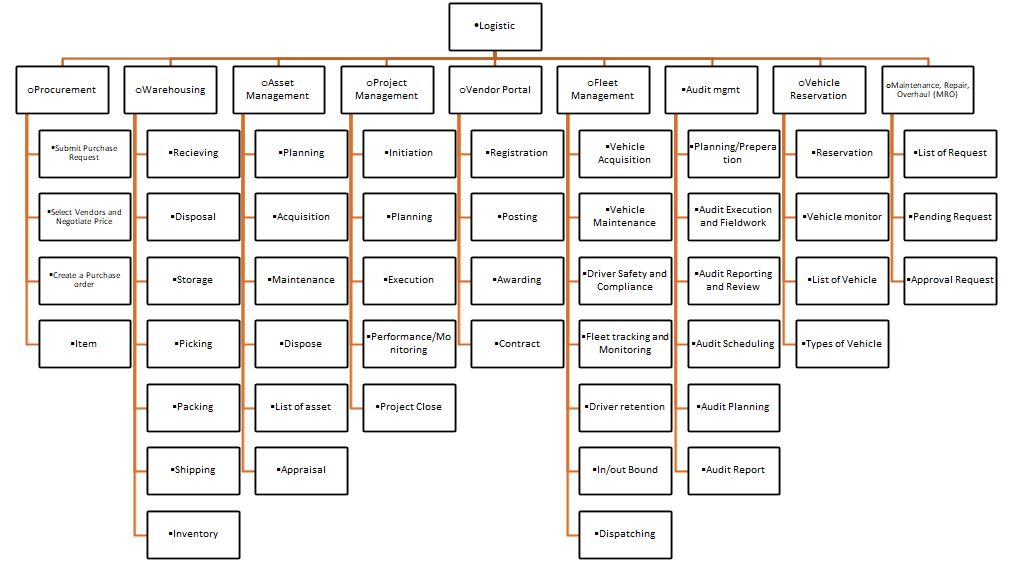


Figure 1: Work Breakdown Structure

### Scope verification

As the project progresses, the Scrum master can compare temporary project deliverables to the initial scope as described in the scope statement, WBS, and WBS language. After the Scrum master ensures that the scope meets the requirements defined in the project setup, the Scrum master and Sponsor can meet for official approval of the delivery. At this presentation, the Scrum master can present the deliverable to the Project Sponsor for official acceptance. The Project Sponsor can consent to the deliverable by signing a project deliverable acceptance paper. This may help to ensure that project work is completed within the project's scope on a continuous basis.

### Scope control

The scrum team can work together to keep the project's scope under control. The scrum team can make use of the WBS by using each WBS element as a work announcement. The project team may make sure that they only complete the work that is stated in the WBS and that they generate the deliverables that are specified for each WBS component. The scrum master may oversee the scrum team and, as a result, the project's progress to ensure that this scope management technique is followed. If a change to the project scope is required, the technique for suggesting scope alterations should be abandoned. Any project team member or sponsor can request changes to the project scope. All change requests should be delivered to the Project Manager in the form of a project change request document. After that, the Scrum master can assess the situation.

# Project Execution plan

## Implementation and migration plan

### Purpose

The Implementation and Migration Plan's goal is to maintain track of each system's performance and maintenance in order to increase productivity and make a firm run more smoothly. The goal of this implementation and migration plan is to outline how the Service Management Logistic project is set up, implemented, and transferred into its operational environment. The purpose of this project is to inform all stakeholders on the details, requirements, and responsibilities involved in completing the project and delivering the product to the operating group. Any suggested changes to the project must be implemented through the project change control process prior to evaluation and approval.

### Description of implementation

Because the company's current maintenance logistic systems are insufficient for expansion work, a Logistic Project will be undertaken to replace them. The implementation of this database is a deliberate and highly technological endeavor. This implementation description provides a clear picture of how the project will be implemented to all stakeholders.

### Points of contact

The table below lists all stakeholders and their points of contact in the event that they have any urgent inquiries or concerns.

|  |  |  |
| --- | --- | --- |
| **Name** | **Roles** | **Contact information** |
| Mr. Khristian Hosena | Project Owner | 00000000000 |
| Barcinal, Marc Julius | Scrum Master | xxxxxxxxxx |
| Cabiling, Romel B. | Back-end Developer | xxxxxxxxxx |
| Malang, Eunique Lamber | System Designer/Front-end Developer | xxxxxxxxxxxxx |
| Ramos, Ronalyn M. | Front-end Developer / Business Analyst | xxxxxxxxxx |
| Lesigues, Fridalyn T. | Front-end Developer | xxxxxxxxxx |

Table 12: Points of Contacts

### Major task

The Scrum Team identified all Major Tasks required for successfully executing and migrating the Logistic Project in Tech-Trendz Human Resource. All of the Major Tasks have been double-checked by the Scrum master, and persons or groups have been assigned to each task. As a result, the project will stay on track and will be communicated to stakeholders in a clear and concise manner. The following is the Major Task for the Logistic Project: Implementation and Migration Plan:

1. **Complete Logistics Design:**

This task implies the conclusion of all system design works for the new Web-based System.

1. **Complete Testing.**

This task indicates the requirements of the system which is the installation of computer, software application, and internet service.

1. **Initial implementation:**

This task indicates the beta testing of the system in the business operation. This will include the calibrating of functionality, and adjustment on the system based on the evaluation.

1. **Full Implementation:**

This task indicates the training and coaching of personnel of proper handling of system and maintenance, including the capturing of existing data to the new database of the system.

1. **Launching of the system: Logistic Scrum Team and CCS Department.**

This task represents the official launch of the system into the business operation.

1. **Project Acceptance: CCS Department and Project Owner.**

This task involves formal acceptance of the Logistic Project and other project deliverables by the Project Owner and CCS Department.

### Implementation Schedule

The table below depicts the Logistic Project's implementation schedule. The above-mentioned Major Tasks are included in this schedule to keep the scrum team and stakeholders informed.

|  |  |
| --- | --- |
| **Major Task** | **Target Date** |
| Complete Logistics Design | TBA |
| Complete installation of devices | TBA |
| Initial implementation | TBA |
| Full Implementation | TBA |
| Launching of the system | TBA |
| Project Acceptance | TBA |

Table 13: Implementation Schedule

### Security

Information security measures will be established and implemented by the CCS department. The logistics database will be protected by the present firewall and security procedures of the CCS department's security administrator. While historical systems will not have any additional or unique security features, the security manager will be involved in all aspects of design, testing, implementation, and migration.

### Implementation Support

In order to execute the project's tasks, the Scrum Master will facilitate all meetings and discussions. To do these tasks, the Scrum Master will collaborate with both the administrative and CCS departments. The CCS department constructs, tests, and installs the database on both the test server and the maintenance server based on the perspectives and needs of the operations and maintenance group. The CCS department also prepares and trains maintenance. The database's lead and helper operators are in charge of this task. The Management Operations Group provides all operational needs for the database's design and implementation to the CCS group. The maintenance operations group should also contribute to the test. All of the maintenance managers are also involved. If further support is required in database education, it is integrated with the Product Owner.

### Listing of hardware, software and facilities

Tech-Trendz Logistic necessitates a database architecture based on the service management system platform rather than the current database's location. This improves functionality and capacities without requiring further hardware or software changes. As a result, no additional infrastructure is required to complete the project's implementation and migration. This project will be carried out within the company's present capabilities

### Performance Monitoring

The database and Logistics share the same characteristics. However, there are some more features. As a result, the design team included these extra features to the Supply chain Database Performance Monitoring supply/product. In order to achieve this goal, additional monitoring criteria were applied to the manufacturing environment when the database was migrated to capture real-time data. Maintenance Operations Leads can track performance and provide weekly reports for CCS leaders and senior executives at the company. If database performance exceeds acceptable limitations, the problem is immediately escalated to staff, who determined and implement corrective actions as well as the root cause.

### Implementation Requirements (Hardware/Software/ Personnel/ Facilities/ other capital investment:

The stakeholders have concluded the requirements collection process for the Logistics Project. Despite the fact that this is a medium-sized project, the shortage of resources has an impact on its implementation. As a result, the institution will require outside assistance to complete the project. The conditions for a successful implementation of the logistics Project are listed below.

* Hardware/Software:
  + Laptop or Desktop
  + Internet Connection
* Personnel:
  + Scrum Team
* Facilities
  + None - Existing workspace will be utilize

### Back Out Plan

When preparing a database installation, we recognized the possibility of a new database failing as soon as it started on a Tech-Trendz administration management server. The scrum team designed a contingency plan to limit this risk, allowing the maintenance crew to continue working even if the system is not turned on. As the data information task advances, all maintenance data for both the database and the maintenance database is updated. The deprecated database is preserved on the service server until the checkout database is produced and operationally accepted. When the system starts up and a fault or malfunction is detected, the developers instantly remove all maintenance. Technicians can access the old database and restore access to it, allowing repair work to continue while the logistics is being fixed and tested.

### Post Implementation Verification

Many steps will be carried out after the system has been deployed to guarantee that it is functioning effectively. First and foremost, operations management will ensure that the assigned maintenance specialist has access to the database in order to do the assignment. Managers will make sure that their database maintenance methods assess their ability to complete all assigned tasks in the database, as well as that the appropriate rights and actions are in place once this has been verified.

# Project Closure

## Transition-out plan

### Executive Summary

The process of migrating the Logistics System's authorities, duties, activities, and task, tool functions is formally documented in this plan. It explains how work and workers are transitioned out of the Logistics System. Tech-Trendz Human Resource will be able to integrate other systems in the Service Management System into a unified system using this Logistics system. This business project is presently in progress and will be completed according to the project advisers' timeline.

### Transition Approach

In this situation, the Development Team can offer the system and pass it on to the Planning process. Employees will assess the program, while the development team will assure its dignity, functionality, and troubleshooting. It will take 30 days to complete the transfer. Prior to the change, the Planning process will take a stance, and the Researcher Team will handle all of the details required for a smooth transition.

### Transition Team Organization

The table illustrates the team members in charge of the Logistic system transition, as well as their roles and responsibilities.

|  |  |  |
| --- | --- | --- |
| **Name** | **Title** | **Role/**  **Responsibility** |
| Barcinal, Marc Julius | Scrum Master | By overseeing complex projects from inception to completion.  Initiating, Planning, executing. Monitoring and Controlling, Closing. |
| Ramos, Ronalyn M. | Business Analyst | Putting a business thoughts and goals in front of the stakeholders. |
| Malang, Eunique Lambert | System Support | Monitor and maintain computer systems and networks. |
| Lesigues, Fridalyn T. | Technical Support | Providing technical support to clients in person and remotely. |
| Cabiling, Romel B. | Process Improvement | Deciding on the best methods to make those changes.  Identifying, analyzing and improving upon existing business processes within an organization for optimization and to meet new standards of quality. |

Table 14: Transition Team Organization

### Work Transition

All employees will continue to work in their current positions throughout the duration of the contract transition. Employees of Tech-Trendz Human Resource shall remain on standby till the transfer is complete to carry out their transition obligations. The assignment has been finished and acknowledged by all stakeholders. The development team will provide a workspace for all topics concerned until the transition is complete.

### Work Execution during Transition

Throughout the transition of this agreement, Tech-Trendz Human Resource will continue to conduct work in accordance with the project timeframe and work breakdown structure (WBS) in place. The transition management team will guarantee that Logistics personnel collaborate with Tech-Trendz Human Resource counterparts, but Tech-Trendz Human Resource will retain total accountability for duties and tasks. After the 90-day transition period and transition approval, Logistics 2 will assume full responsibility for all tasks and deliverables.

### Subcontracts

The table shows the subcontractors that will fulfill the implementation requirements of the Logistic system in Tech-Trendz Human Resource.

|  |  |  |
| --- | --- | --- |
| **Subcontract** | **Awarded to** | **Task** |
|  |  |  |
|  |  |  |
|  |  |  |

Table 15: Subcontracts

### Property Transition

#### Government Furnished Equipment (GFE)

As part of this transition, any GFE delivered to Tech-Trendz Human Resource under the Logistics System contract will be turned in to the authorities after the transitional time is completed and approved. As part of the GFE, the transition phase has been completed and approved. GFE includes laptop computers, all PEDs, flash and external hard drives, and employee ID badges. Government IT personnel will re-image all electronic gadgets and provide them to Logistics staff as new.

#### Incumbent Owned Equipment

All incumbent-owned devices will be preserved by the appointee when the transfer is completed and approved. Laptop computers, organizational tools, organizational process maps, firm ID badges, and other items are included in this equipment. If it is determined that any incumbent-owned equipment must remain with the customer in order for the agreement to be successful, the customer and incumbent contracting officer representatives will coordinate the equipment's procurement through the customer's established procurement management process.

#### Intellectual Property

All intellectual property that is a direct result of work on the contract deliverables will be migrated to the next contractor to enable the successful completion of the logistics System contract. Because intellectual property is factored into contract pricing, any resulting intellectual property will be owned by the customer.

#### User Accounts and Passwords

Multiple user account accesses and authorizations must be created and withdrawn as part of the contract transfer. Employees listed in the table below have current access to the user accounts and system needed to complete contract deliverables. On the first day of the contract transition phase, the mentioned Tech-Trendz personnel will be provided access. All official user accounts will be disabled once the transfer is complete and approved.

|  |  |
| --- | --- |
| **User Account** | **Tech-Trendz** |
| Super Admin | dev.admin@techtrendz.com |
| Administration | admin@techtrendz.com |
| Logistic Manager | logistic@techtrendz.com |
| Officer | Id\_numer@techtrendz.com |

Table 16: User Accounts and Password

### Knowledge Transfer

During the 30-day transition time for this shift, knowledge will be transferred. Knowledge will be transferred using a variety of approaches. These discussions will concentrate on specific IT challenges pertaining to database responsibilities and operations. In addition, the chosen Scrum Master will work with the elected Administrator. Documentation requirements, as well as organizational procedures and assets, will be covered in these sessions. These sessions must be completed at least 20 days before the 30-day transition period ends. Furthermore, all employees will work at a rapid speed for the duration of the 30-day period to become familiar with the database, tools, processes, and organizational assets.

### Schedule

### Handover and Acceptance

When all transition-related actions have been accomplished, the client's transition email will employ the specified transition checklist. The client's project sponsor and the company's human resources director will sign and approve the checklist and supporting documents. The transition will not be considered complete until all of these approvals and signatures have been acquired.

## Project acceptance

The Scrum Master is authorized to complete the project's formal closeout. A post-project evaluation, documentation of lessons learned, release of the Scrum Team, closing out all procurements, and archiving all pertinent project records are all part of the closeout process. The Project Sponsor will be contacted once the closing procedure is complete, and the Scrum Master will be dismissed from the project

Project Owner Acceptance

Approved by the Project Owner:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(Signature over Printed name).

## Post project review

### Project Summary

The logistics project’s purpose is to improve collection report creation. This project satisfies the demand for speedier car services while also making collecting reports simple to generate. The project deliverables include system design, full coding, testing, deployment of an integrated system for usage with current IT infrastructure, and a user's guide. The logistics project aims to improve vehicle and document services, make collecting reports easier to prepare, automatically tally amounts, and provide reporting functions.

#### Project Team and Staffing

The Tech-Trendz consisted of a skilled and knowledgeable team.

The chart below provides information about Tech-Trendz team members:

|  |  |  |
| --- | --- | --- |
| **Name** | **Role** | **Contact** |
| Mr. Khristian Hosena | Project  Sponsor |  |
| Barcinal, Marc Julius | Scrum Master |  |
| Cabiling, Romel | System Analyst | [romelcabiling22@gmail.com](mailto:romelcabiling22@gmail.com) |
| Malang, Eunique Lambert | System Designer / Frontend Developer |  |
| Ramos, Ronalyn | Business Analyst / Frontend Developer |  |
| Lesigues, Fridalyn | Documentation / Frontend Developer |  |

Table 17: Project Team and Staffing

SMS project team members completed the project successfully using standard project management procedures. The scrum team had a matrixes organization with strong managers and senior leadership on board. Effective communication, thorough planning, neutral participation, project management tools, and structure all play important roles in the project's success.

#### Project Deliverable (Planned vs. Actual)

#### Transition to Operations

Transitioning to a new technological endeavor to modernize the running of any industry, such as Tech-Trendz Human Resource, can be difficult.

The Scrum Team ensures that all stakeholders and the Project Owner communicate effectively throughout the project's duration to preserve continuity after the handover.

Because of effective communication and preparation, the Logistic Project was able to effectively transition to operation. The Project Owner, CCS department, and other stakeholders will be in responsible of ensuring that a new web-based system can effectively transition to an operational environment.

It is possible to improve future projects by involving operations staff early in the project design phase and requesting feedback on critical operational elements. As a result, the system's transition to business operations went off without a hitch. If operations staff had not been engaged as stakeholders or involved in project planning, this stage would have occurred later. This would have caused the project to be delayed and would have resulted in higher costs.

### Project Costs

The budgeted price for the Tech-Trendz Human Resource Project was established at this amount, which was separated out per project innovation in the chart below, with actual pricing compared to the planned/budgeted price.

|  |  |  |  |
| --- | --- | --- | --- |
| **Project Phase** | **Budgeted Cost** | **Actual Cost** | **Comments** |
| Product Design | 20,000 | 20,000 | Product Design costs were on budget |
| Testing | 20,000 | 20,000 | Testing costs were on budget |

Table 18: Project Costs

The Logistic Project's overall actual costs came to a total of. This project not only met all of its objectives and deliverables, but it also allowed the project team to allocate ₱40,000 to other vital efforts by finishing under budget. Refinement of the finished product as desired. The expenditures were sufficient for the whole budget, according to the budget.

### Project Schedule

This section explains the project's start-to-finish schedule or timeframe, as well as how the project performed against it. This information is useful in determining what factors may have contributed to project delays or allowed the project to finish early or on time. This might then be used by team members on subsequent visits or documented by other project groups for future visits. One of the most effective ways for a company to improve its project management methodologies and effectiveness is to archive project data throughout the project closure phase.

|  |  |  |  |
| --- | --- | --- | --- |
| **Project Phase** | **Scheduled Completion** | **Actual Completion** | **Comments** |
| Project Plan | TBA | Ongoing | Ongoing |
| Design | TBA | Ongoing | Ongoing |
| Coding | TBA | Ongoing | Ongoing |
| Testing | TBA | Ongoing | ongoing |
| Implementation | TBA | Ongoing | ongoing |
| One Transaction | TBA | Ongoing | ongoing |
| Project Clouse | TBA | ongoing | ongoing |

Table 19: Project Schedule

### Recommendations

# Technical solution design

## Project Information

|  |  |
| --- | --- |
| **Name** | Tech-Trendz Human Resource Logistic  (Tech-Trendz Logistic) |
| **Description** | A system for assessing, training, and honing each employee's potential and skills for their specific professional path. |
| **Business Owner** | Mr. Khristian Hosena |
| **Objective** | To provide a streamlined way to manage staff competency, learning and training development, and an information platform that is easily accessible. |

Table 20: Project Information

## Executive Summary

## Requirement Definition

## Solution Description

### Logical Architecture

### High-Level Architecture

### Process Flow

## Implementation Timeline

# System architecture

## Business Process Architecture

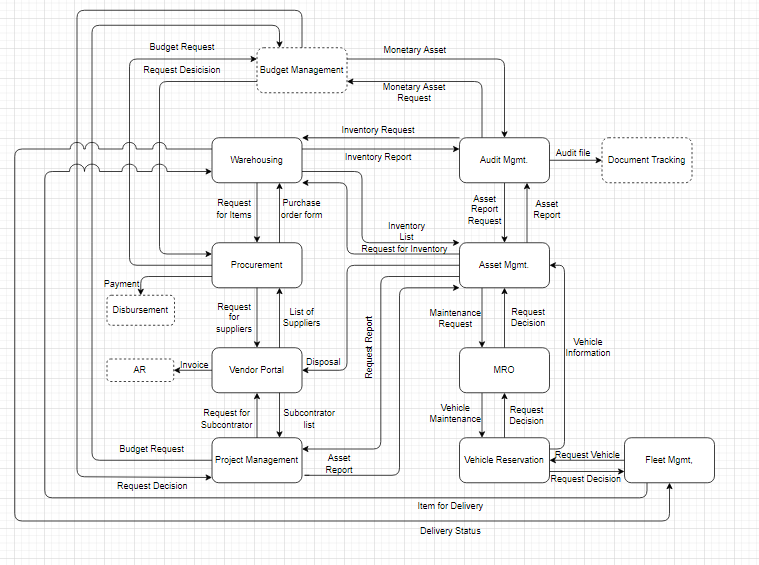


Figure 2: BPA Top Level 1

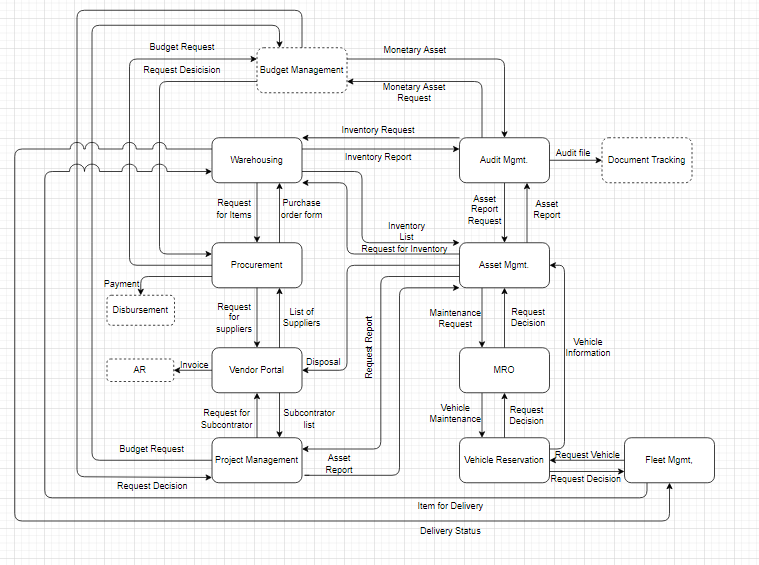
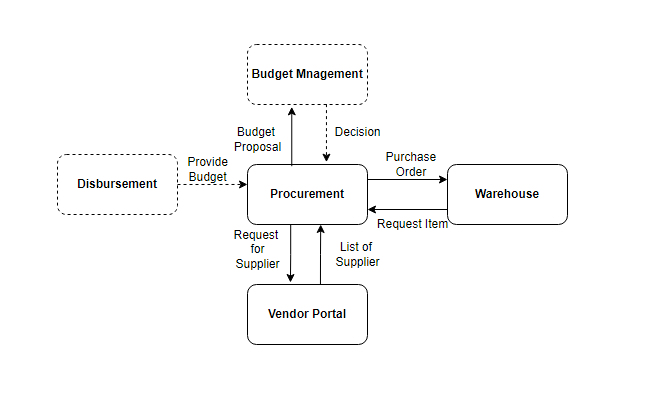


Figure 3: BPA Top Level 2



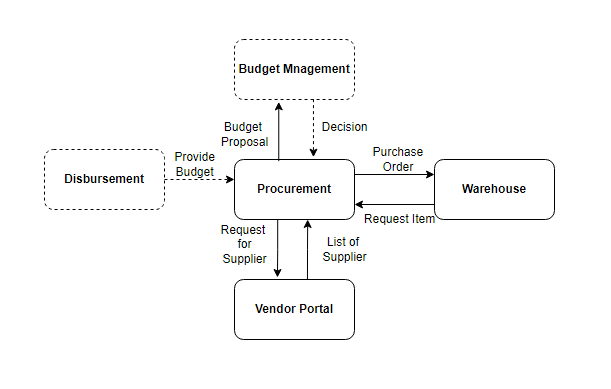


Figure 4: BPA Top Level 3 Procurement

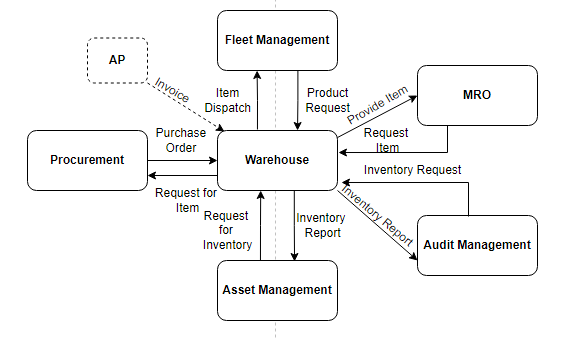


Figure 5: BPA Top Level 3 Warehousing

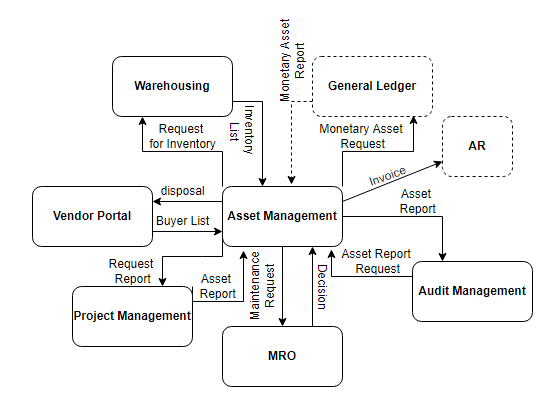


Figure 6: BPA Top Level 3 Asset Management

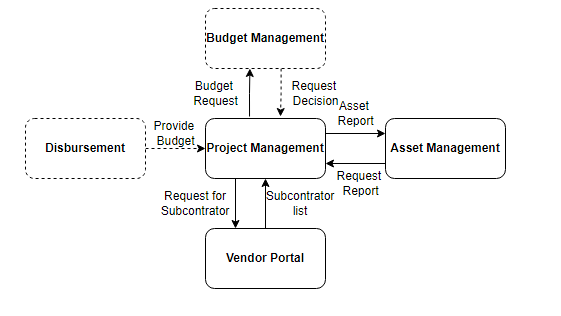


Figure 7: BPA Top Level 3 Project Management

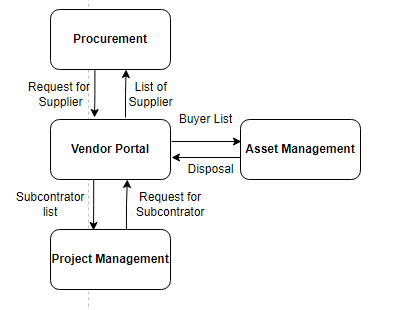


Figure 8: BPA Top Level 3 Vendor Portal

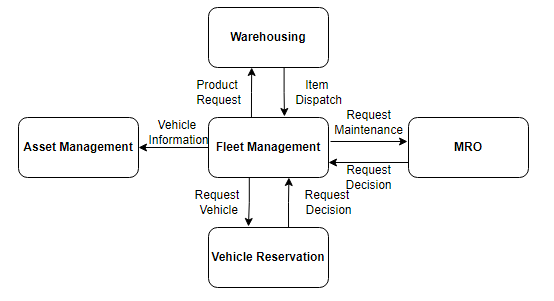


Figure 9: BPA Top Level 3 Fleet Management

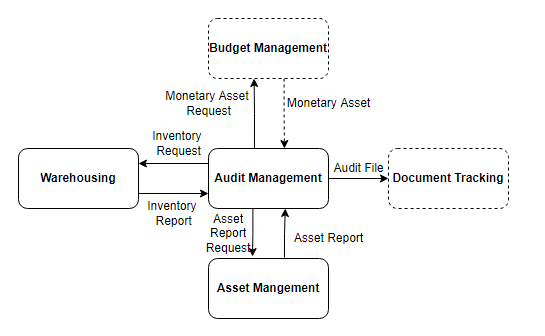


Figure 10: BPA Top Level 3 Audit Management

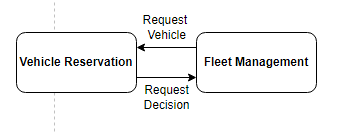


Figure 11: Vehicle Reservation

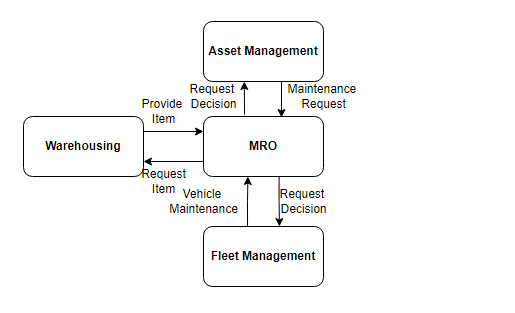


Figure 12: BPA Top Level 3 Maintenance Repair and Overhaul

## Application Architecture

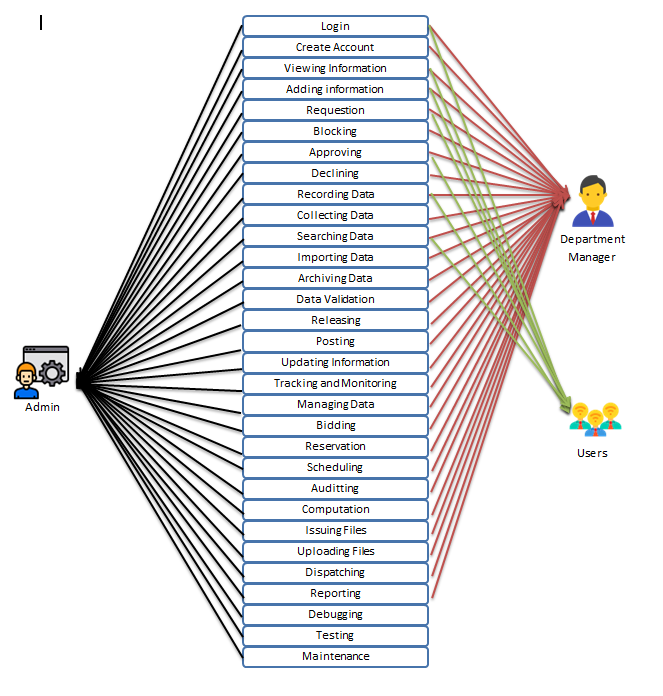


Figure 13: Application Architecture

## Data Architecture

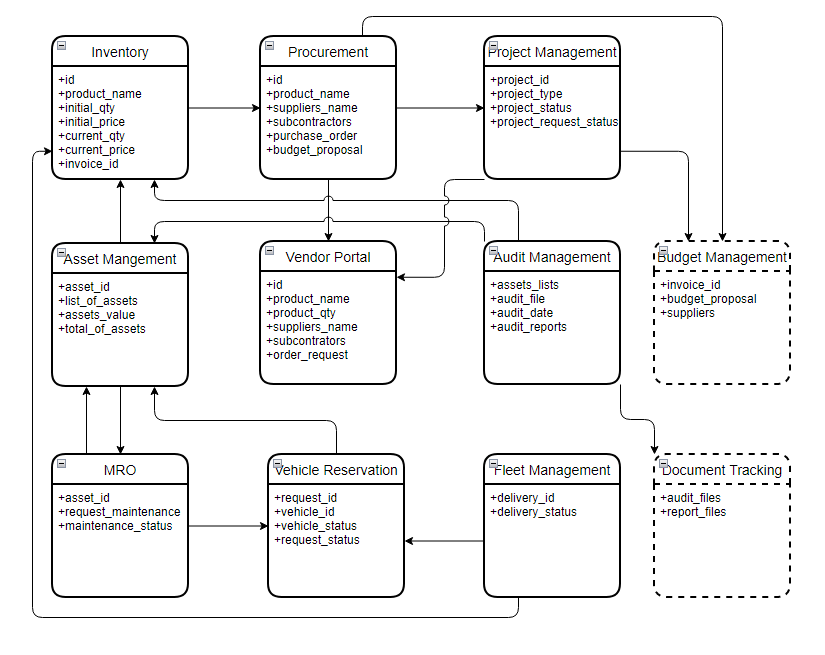


Figure 14: Data Architecture

## Technology Architecture

|  |  |
| --- | --- |
| **Title** | **Description** |
| HTML 5 | * HTML, or Hypertext Markup Language, allows web users to create and structure sections, paragraphs, and links using elements, tags, and attributes |
| css3, original, wordmark, logo Icon  CSS 3 | * CSS3 is used with HTML to create and format content structure. It is responsible for colors, font properties, text alignments, background images, graphics, tables, etc. It provides the positioning of various elements with the values being fixed, absolute, and relative. |
| Web Design and Development Course : ITRA  BOOTSRAP 5 | * Bootstrap is a potent front-end framework used to create modern websites and web apps. It's open-source and free to use, yet features numerous HTML and CSS templates for UI interface elements such as buttons and forms. Bootstrap also supports JavaScript extensions. |
| Laravel - Wikipedia  LARAVEL | * Laravel is a web application framework with expressive, elegant syntax. We believe development must be an enjoyable and creative experience to be truly fulfilling. |
| Logo Mysql PNG images, Free Download - Free Transparent PNG LogosMYSQL | * MySQL is a popular database system. |
| Ubuntu icon Logo PNG Transparent & SVG Vector - Freebie Supply  UBUNTU | * Ubuntu is a Linux distribution based on Debian and composed mostly of free and open-source software. Ubuntu is officially released in three editions: Desktop, Server, and Core for Internet of things devices and robots. |
| Composer - Free brands and logotypes iconsCOMPOSER | * Composer is an application-level dependency manager for PHP. Dependency simply means libraries/packages your application depends upon. |
| Visual Studio Code | * Visual Studio Code, also commonly referred to as VS Code, is a source-code editor made by Microsoft for Windows, Linux and macOS. Features include support for debugging, syntax highlighting, intelligent code completion, snippets, code refactoring, and embedded Git. |
| GitbashUsing git commands on Windows | * Git Bash is an application for Microsoft Windows environments which provides an emulation layer for a Git command line experience. |
| PHP | * . A PHP Function feature is a piece of code that can be used over and over again and accepts argument lists as input, and returns a value. PHP comes with thousands of built-in features |
| JavaScript Logo  Javascript | * A function in JavaScript is similar to a procedure—a set of statements that performs a task or calculates a value, but for a procedure to qualify as a function, it should take some input and return an output where there is some obvious relationship between the input and the output |
| XAMPP Logo Vector (SVG, PDF, Ai, EPS, CDR) Free Download - Logowik.comXAMPP | * A special tool is provided to password-protect the most important parts of the package. XAMPP also provides support for creating and manipulating databases in MariaDB and SQLite among others. |
| Application server Computer Icons Web application Computer Servers, world  wide web, text, logo, web Application png | PNGWingAPACHE | * Apache is responsible for accepting directory (HTTP) requests from Internet users and sending them their desired information in the form of files and Web pages. |
| .TTECH domains | GitHub Student Developer PackECH | * tech is a generic top-level domain (gTLD) of the Domain Name System (DNS) used in the Internet. The name is truncated from technology. |
| Let’s Encrypt | * Let's Encrypt is an open and automated certificate authority that uses the ACME (Automatic Certificate Management Environment) protocol to provide free TLS/SSL certificates to any compatible client. These certificates can be used to encrypt communication between your web server and your users. |
| Digital Ocean | * Digital Ocean, Inc. is an American cloud infrastructure provider organization. |
| NGINX | * NGINX is open source software for web serving, reverse proxying, caching, load balancing, media streaming, and more. It started out as a web server designed for maximum performance and stability. |
| Laratrust - Roles & Permission Management - Made with LaravelLARATRUST | * "Laratrust is an easy and flexible way to add roles, permissions and team’s authorization to Laravel." |
| GITHUB | * GitHub, Inc. is a provider of Internet hosting for software development and version control using Git |

Table 21: Technology Architecture

# Product Backlog

## Product backlog (user stories) Table

|  |  |  |  |
| --- | --- | --- | --- |
| **No.** | **User Stories** | **Priorities** | **Status** |
| **Procurement** | | | |
|  | As a procurement officer, I want to view all the supplier details approved by the vendor portal, so that I can get informed of what the suppliers offer.  *Create a table list of supplier details.* |  | Ongoing |
|  | As a procurement officer, I want to be able to create a purchase order, so that I can send it to supplier.  *Create a form for purchase order.* |  | Ongoing |
|  | As a procurement officer, I want to have a list of procured items, so that I can see all the items that the our department purchased.  *Create a table list of procured items.* |  | Ongoing |
|  | As a procurement officer, I want to view procurement requests from other departments, so that I can send a budget proposal to budget management  *Create a request table list.* |  | Ongoing |
| **Warehousing** | | | |
|  | As a warehousing officer, I want to view the entire inventory, so that I can determine what items are need to be procured.  *Create an inventory table.* |  | Ongoing |
|  | As a warehousing officer, I want to send a request for supplies to procurement department, so that I can maintain the inventory stocks.  *Create a request function* |  | Ongoing |
|  | As a Warehousing officer, I want to be notified if we are having a product shortage, so that I can send a request for supplies.  *Create a notification function.* |  | Ongoing |
|  | As a Warehousing officer, I want to be able to add products on the inventory table, so that I can add new products on our list.  *Create add function on the table* |  |  |
|  | As a Warehousing officer, I want to be able to search products from our inventory, so that I will be able to find specific products more easily.  Create search function on the table. |  |  |
| **Assets Management** | | | |
|  | As an Asset Management officer, I want to have a list of all assets in the company, so that I can track all of the assets in the company.  *Create a table listing for all asset* |  | Ongoing |
|  | As an Asset Management officer, I want to add new asset in the table, so that I can list a new assets.  *Create an add asset function* |  | Ongoing |
|  |  |  | Ongoing |
| **Project Management** | | | |
|  | As a Project Management officer, I want to send a project proposal budget management, so that I can start a new project.  *Create a request form.* |  | Ongoing |
|  | As a Project Management officer, I want to send a request for subcontractors’ to vendor portal, so that I can have a subcontractor for the project.  *Create a request form.* |  |  |
|  | As a project management officer, I want to view the status of our projects, so that I can monitor and track the progress of the project  *Create a status report for project list* |  |  |
| **Vendor Portal** | | | |
|  | As a Vendor Portal officer, I want to post ads to find a suppliers / subcontractors, so that I can find a supplier / subcontractors for the company.  *Create a posting function.* |  | Ongoing |
|  | As a Vendor Portal officer, I want to post a listing for asset for sale, so that I can sell the assets.  *Create a listing function.* |  |  |
|  | As a vendor portal officer, I want to view a list of posted ads and listing, so that I can track the lists.  *Create a list of posted ads* |  |  |
| **Fleet Management** | | | |
|  | As a Fleet Management officer, I want to send a delivery receipt to warehousing department, so ??  *Create a sending form.* |  | Ongoing |
|  | As a Fleet Management officer, I want to view a delivery status, so that I can track and monitor the delivery.  *Create a delivery status in the table.* |  |  |
|  |  |  |  |
| **Audit Management** | | | |
|  | As an Audit Management officer, I want to request for an audit report to other department, so that I can audit all transaction.  *Create a request form.* |  | Ongoing |
|  | As an Audit Management. officer, I want to view the current value of an asset in the company, so that I can see the value of the company.  *Include the current value of the asset in the table* |  | Ongoing |
|  | As an Audit Mgmt. officer, I want a list of all assets in the company, so that I can conduct an audit report.  *Create a table for listing all of the assets* |  | Ongoing |
| **Vehicle Reservation** | | | |
|  | As a Vehicle Reservation officer, I want to have a list of all vehicles, so that I can see what vehicles are available or not.  *Create a list of all vehicles.* |  | Ongoing |
|  | As a Vehicle Reservation officer, I want to view all the list of reservation, so that I can see all the reservation.  *Create a table list of reservation.* |  | Ongoing |
|  | As a Vehicle Reservation officer, I want to have an approve or decline button, so that I can approve or decline a request.  *Create a button for accept or decline.* |  |  |
| **Maintenance, Repair and Overhaul** | | | |
|  | As an MRO officer, I want to have a table list for all requests, so that I can see the entire request list for maintenance.  *Create a request table list.* |  | Ongoing |
|  | As an MRO officer, I want to have an approve or decline button to the table, so that I can approve or decline requests.  *Create a button for approve or decline.* |  | Ongoing |
|  | As an MRO officer, I want to send a request for supplies to warehousing department, so that I can maintain some damaged assets.  *Create a request form.* |  | Ongoing |
|  |  |  |  |

Table 22: Product Backlog (User Stories) Table

## Product Backlog for EIS Information Security

|  |  |  |  |
| --- | --- | --- | --- |
| **No.** | **User Stories** | **Priorities** | **Status** |
| 1 | As a product owner, I want to have a secured domain, so that our system is secured.  *Create a secured domain with SSL* | 1 | Ongoing |
| 2 | As a product owner, I want to have a secured database, so that our data is secured.  *Create a security for database* | 1 | Ongoing |
| 3 | As a product owner, I want to have a backup. So that in case of emergency we have a backup.  *Create a backup plan* | 1 | Ongoing |
| 4 | As a product owner, I want to have a secured accounts, |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

Table 23: Product Backlog EIS Information Security

## Product Backlog for EIS Standards

|  |  |  |  |
| --- | --- | --- | --- |
| **No.** | **User Stories** | **Priorities** | **Status** |
| 1 | As a product owner, I want to have a login form, so that I can login to the system.  *Create a login form.* | 1 | Ongoing |
| 2 | As a product owner, I want to create an account for my staff, so that my staff can access the system.  *Add a create account function.* | 1 | Ongoing |
| 3 | As a logistic admin, I want to be integrated to other department, so that I can do transaction with them.  *Integrate logistic panel to other department* | 2 | Ongoing |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

Table 24: Product Backlog for EIS Standard

## UI/UX (Icons, color, etc.)

|  |  |  |
| --- | --- | --- |
| **UI** | **Icons** | **Descriptions** |
| Buttons |  | Design for all button |
| Icons |  | Design for Icons |
| Forms |  | Form Design |
| Dropdown |  | Dropdown design |
| Charts |  | Charts Design |
| Tables |  | Design for tables |
| Colors Scheme |  | Color Scheme |

Table 25: UI/UX (Icons, Color, ETC.)

## Product Backlog for integration

|  |  |  |  |
| --- | --- | --- | --- |
| **No.** | **User Stories** | **Priorities** | **Status** |
| 1 | As a product owner, I want to have an integrated dashboard from all departments, so that I can see all of the function in the entire system.  *Create an integrated dashboard for admin.* | 1 | Ongoing |
| 2 | As a logistic admin, I want to be integrated to other department, so that I can do transaction with them.  *Integrate logistic panel to other department* | 1 |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

Table 26: Product Backlog for Integration

## Product Backlog for analytics

## Application System Analytics

## EIS Analytics

# Sprint backlog

## Sprint backlog table

### User stories

### Information security

### EIS standard

### EIS integration

### Analytics

## Sprint Burndown Chart

### Sprint Backlog

# EIS Implementation Model

## Information and Data Management

### Data Integration Model

### Data Migration Strategies

#### Planning

#### Data Profiling

#### Data Backup

#### Migration Design

#### Execution

#### Testing

#### Post-Migration Audit

### Data Analytics (Business Intelligence Framework)

### Privacy and Security

### Backup, Retention, and Disposal

## Information Security

### Physical Security

#### Administrative Security Controls

##### Personnel Security

##### Account Management

#### It and Security Policy

#### Technical Security Controls

##### It Infrastructure Security

##### Software Security Management

##### Cloud Security

##### Cybersecurity

#### Network Security

#### Firewall Management

#### Network Devices Security

#### Software Patch Management

#### Malware Protection

## Network Design and implementation Model

### Design Architecture

#### Hardware

#### Transmission Media

#### Protocols

#### Topology

### implementation Framework

# Conclusion and Recommendations

# Appendices:

## Appendix A Detailed System Architecture/ Reference requirements

### A.1 Business Process Architecture (Business Process Model)

### A.2 Application Architecture

#### A.2.1 UML- Use Case Diagram

#### A.2.2 UML- Detailed Diagrams

#### A.2.3 UI Navigation Diagram

#### A.2.4 UIs (Design Layout)

### A.3 Data Architecture

#### A.3.1 ERD

#### A.3.2 Class Diagram

#### A.3.3 Data Dictionary

### A.4 Technology Architecture

# Appendix B Deployment Diagram

# Appendix C Adviser Acceptance (Functional)

# Appendix D Sprint Burndown Charts (per sprint) Signed by the adviser

# Appendix D.1 Individual burndown charts per member

# Appendix B Deployment Diagram

# Appendix E Requirements Traceability Matrix (PB, Test Scenarios, status

# Appendix F Panel Evaluation and Signature (Plus photo ops during defense)

# Appendix G Pilot Companies Background with proofs of interviews

# Appendix H USB Copy of the codes (reliable USB)

# Appendix I IMRAD Format Summary

# Appendix J Comparison of the EIS to existing EIS’s (5 Pages)

# Appendix K Operation Manual (10 Pages max, 5 Pages min)

### 