**Project Management Plan**

TITLE PAGE

ABSTRACT

This project is to develop a system to manage the information when a distributor sells products to authorized agents and a B2C Online E-commerce application to sell products to customers. This system involves not only the management of the ingoing/outgoing products of distributors; but also the requirements to adapt to fast-changing customers’ need to sell products efficiently. Furthermore, this project requires the server side to operate properly and the user interface to be appealing to enhance the satisfaction of target customers. Therefore, our team has to choose the proper development plan to ensure the accuracy, security, and user experience of the management system and the B2C application.

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INTRODUCTION

Introduction to the entire plan

According to the client’s requirements, this project is planned to help the distributor’s staff to manage the goods imported and sell information to other resellers. Furthermore, the project requires investigating the customers’ insights to perform suitable functions on the B2C E-commerce website.

purpose and scope of the plan

This plan aims to develop and deliver parts of the system to ensure the client’s satisfaction and meet their expectations. The system is required to meet standards in the logistics field when used by staff and agents in Win Form and Web Form-based. The B2C website consists of the proper insights into the e-commerce field to sell products online for customers in a satisfactory way.

brief overview of the product (including purpose, capabilities, scenarios for using the product, etc)

As described in the client’s requirements, the deliverables are used by the distributor’s staff (Accountants) to manage the products, and agents’ information, and make necessary statistics in Win Form and Web Form-based. Besides that, it also is the method for resellers to place their order for distributor’s items. Regarding the B2C website, it requires to meet e-commerce requirements and develop to accelerate the customers’ experience when shopping online on the website.

description of the structure of the plan

PROJECT ORGANIZATION

describe the way in which the development team is organized, the people involved, and their roles on the project

include the rationale

The development team is organized as a Scrum team consisting of two members - Le Thanh Tien and Tran To Bao Long.

LIFE CYCLE MODEL USED

describe the lifecycle model used

include the rationale

As the description mentioned above, this project uses an Agile project life cycle (Agile SDLC) and our team uses the SCRUM SDLC framework to adopt this methodology. One of the reasons for this choice is that the project can take advantage of the Agile characteristics in speed and adaptability to get feedback for the deliverables and adapt changes as soon as possible. Another advantage is that the size of the development team is quite small, the Agile method can supply the responsibility and ownership shared among team members to understand the project transparently.

RISK ANALYSIS

describe possible project risks, the likelihood of these risks arising, and the risk reduction

strategies that are proposed

include the rationale.

| Risk Category | Extended Categories |
| --- | --- |
| Technical | Requirements, Technology, Interfaces, Performance, Quality |
| External | Customer, Contract, Market, Supplier, Competitor |
| Organizational | Project Dependencies, Logistics, Resources, Budget |
| Project Management | Planning, Schedule, Estimation, Controlling, Communication |

| Project Objective | C Rating 10 | B Rating 50 | A Rating 100 |
| --- | --- | --- | --- |
| Cost | Cost increase > 0% | Cost increase of 5 - 10% | Cost increase > 10% |
| Schedule | Overall project schedule delay > 0 days | Overall project schedule delay > 1 week | Overall project schedule delay > 2 weeks |
| Scope | Scope decrease is barely noticeable | Minor areas of scope are affected | Major areas of scope are affected; scope reduction unacceptable to the client |
| Quality | Quality reduction is barely noticeable | Quality reduction does not affect vital functionality | Quality reduction requires client approval |

|  | | Probability | | | |
| --- | --- | --- | --- | --- | --- |
| 1 = high (80% <= x <= 100%) | 2 = medium high (60% <= x < 80%) | 3 = medium low (30% <= x < 60%) | 4 = low (0% < x < 30%) |
| Impact | A = high (Rating 100) | Exposure - Very High (Score 100) | Exposure - Very High (Score 80) | Exposure - High (Score 60) | Exposure - Very Moderate (Score 30) |
| B = medium (Rating 50) | Exposure - High (Score 60) | Exposure - Very Moderate (Score 40) | Exposure - Very Moderate (Score 30) | Exposure - Low (Score 15) |
| C = low (Rating 10) | Exposure - Low (Score 10) | Exposure - Low (Score 8) | Exposure - Low (Score 6) | Exposure - Low (Score 3) |

| Risk Event | Probability | Impact Rating | Score |
| --- | --- | --- | --- |
| The risk of software errors. Technical errors can cause various problems such as incorrect pricing or inventory levels and incorrect shipping platform | 60% | A(100) | 80 |
| The risk of getting an information hack. Hackers can gain access to sensitive information such as credit card numbers, addresses, or phone numbers. | 50% | A(100) Because if your information leaks out that will be a serious problem for us. | 60 |
| The risk of data. The data that shows in the client may not be identical to the data in the server. | 20% | B(50) | 15 |
| The risk of the distributor. There is a chance that the distribution center and infrastructure can have errors so they cannot send you the product on time. Maybe it will be delayed for 2-3 days. | 30% | C(10) | 6 |

| Risk Event | Risk Response |
| --- | --- |
| The risk of technical errors | * Agreeing on penalties with the hardware supplier for technical errors. * Evaluating ways to fix errors as soon as possible before the project kick-off. * Testing the system many times to find bugs and inviting customers to join the system test before release. |
| The risk of getting an information hack | * Making sure the information has been authenticated before release. * Ensuring with the customer that all their information will not be sold or leaked out. * Informing the customer of the latest version and reminding them to update the software manually. * Helping the customer to prevent consequences if the information is leaked. |
| The risk of data | * We will make sure that the system will be checked many times before the release. * If you have this issue, please contact our admin whether you have purchased the product. |
| The risk of the distributor | Contacting agents and negotiating to have a solution for delaying. |

| Risk Event | Risk Trigger |
| --- | --- |
| The risk of technical errors | The software is disrupted by the system due to internal errors. |
| The risk of getting an information hack | The system has a signal history to be accessed by strange actions |
| The risk of data | The response data conflict with the expectation and the paper information |
| The risk of the distributor | The orders are blocked and can not be delivered to the customers |

| Risk Event | Risk Owner |
| --- | --- |
| The risk of bugs | The whole team |
| The risk of getting an information hack | System Team MemBer( TRAN TO BAO LONG) |
| The risk of data | System Team Leader (LE THANH TIEN) |
| The risk of the distributor | The Distributor |

HARDWARE AND SOFTWARE RESOURCE REQUIREMENTS

describe the hardware and software required to carry out the development.

both hardware and software must be available in the lab

include the rationale

There are some requirements of the hardware and software to develop and operate the entire project, including:

* Operating system:
  + Windows 11 version 21H2 or higher with a plan including Home, Pro, Pro Education, Pro for Workstations, Enterprise, and Education [2]
  + Windows 10 version 1909 or higher with a plan including Home, Professional, Education, and Enterprise [2].
  + Windows Server 2022 with a plan including Standard and Datacenter [2].
  + Windows Server 2019 with a plan including Standard and Datacenter [2].
  + Windows Server 2016 with a plan including Standard and Datacenter [2].
* Hardware:
  + Windows computer or Macbook with special notes to run the software.
  + 4GB RAM minimum [2].
  + From 850 MB up to 210 GB of available space [2]
* Software:
  + Microsoft SQL Server 18 or higher
  + Visual Studio 2019 or 2022 (Windows computer)
  + Visual Studio for Mac (macOS computer)
* Require technology:
  + C#
  + .NET framework
  + Other extensions to perform small functions.

DELIVERABLES, SCHEDULE

describe the activities, dependencies between activities, the estimated time required to

reach each milestone, and the allocation of people to activities

include the rationale.

MONITORING, REPORTING, AND CONTROLLING MECHANISMS

describe the management reports that should be produced, when these should be produced,

and the project monitoring and control mechanisms used

include the rationale

- Due to the nature of Agile methodology, the reports proposed only are the essential documents containing detailed information of the plan and system used for design and development process. These documents are described briefly in the following section:

* Requirement specification: This document describes the detailed requirements, the structure of the system, and how the customers interact with the system which are vital parts of designing the project. Therefore, this document has to be conducted in the early stage of the project and will have some changes to meet the new requirements later.
* Architectural design: This document contains information about the structure layer of the system which lays an important foundation for developing the software. This document is expected to be done in the middle stage so that other team members can follow the project’s growth.
* Other notes about the database and code structure are used by the development team to communicate with each other and generate code for the project. These notes are generated along with the development process to ensure that the system satisfies the customer's requirements.

- To control all tasks in this project, our team takes advantage of available software. To begin with, agile software development is applied by the combination of the Scrum framework and Kanban board, and as a result, the Asana web application is used to assign and keep track of tasks. Another mechanism is to use the Gantt chart in Google Sheets to control the schedule and overall performance of the team to ensure that the team members meet the deadlines.

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PROFESSIONAL STANDARDS

* All work products of team must be kept secret at all times. In other words, all works cannot be leaked to external parties. If there is any of this behavior, that team member will have serious disciplinary action.
* When a team member agrees to resolve a task, he/she must be responsible for the quality of output.
* All team members must meet the deadlines.
* When due dates are getting closer and the assigned tasks are incompleted, that team member must notify other team members to have proper solutions.
* If a team member has a concern about the task, he/she must notify as soon as possible.
* When a task is completed, all members have to review the solution. If there are any concerns about that solution, he/she must notify the task owner at that time and any feedback is not accepted at later dates. In the case that changes must be adapted, all team members will discuss that solution again.
* If a team member has just added an updation, he/she must notify other team members.
* Valid reasons that must be considered include those listed for obtaining an incomplete standing in a course (illness, death in the family, travel for business or academic reasons, etc.)

EVIDENCE THE DOCUMENT HAS BEEN PLACED UNDER CONFIGURATION

MANAGEMENT

REFERENCES

complete, correctly formatted using IEEE standard

Appendix A.

The following provides a professional standards guideline for the teams. This guideline may be

tailored. The professional standards must be agreed upon by each member in the team.

Guideline:

On the first occurrence of unacceptable behavior, determine the circumstances involved, resolve the problem, and document the event in the meeting minutes.

On a second occurrence, notify the instructor of the problem. A meeting will be set up to evaluate the situation and resolve the problem.

On a third occurrence, again notify the instructor of the problem. A meeting will be set up to

evaluate the situation and resolve the problem. At this point, the team will have the \*option\* of removing the team member. If removed, then the team member receives a pro-rated grade based on the number of weeks they have participated in the group.

Examples of unacceptable behavior may include not delivering on time, delivering poor quality work, missing team meetings, being unprepared for team meetings, disrespectful or rude behavior, etc. Reasons such as "too busy" or "I forgot", or "my dog ate my design model" are unacceptable.

Valid reasons that must be considered include those listed for obtaining an incomplete standing in a course (illness, death in the family, travel for business or academic reasons, etc.)