E-commerce Web Application

Software Development Plan (Small Project)

Version <1.0>

Revision History

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| 06/11/2020 | 1.0 |  | Huỳnh Nhật Nam |
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Software Development Plan (Small Project)

# 

# Introduction

## Purpose

This document presents the activities needed for developing a e-commerce web application.

The following people use the *Software Development Plan*:

* The **project manager** uses it to plan the project schedule and resource needs, and to track progress against the schedule.
* **Project team members** use it to understand what they need to do, when they need to do it,what are their roles and what other activities they are dependent upon.

## Scope

This *Software Development Plan* describes the overall plan to be used by the e-commerce web application project, including deployment of the product. The details of the individual iterations will be described in the Iteration Plans.  
The plans as outlined in this document are based upon the product requirements as defined in the *Vision Document*.

## Overview

This *Software Development Plan* contains the following information:

Project Overview — provides a description of the project's purpose, scope, and objectives.  It also defines the deliverables that the project is expected to deliver.

Project Organization — describes the organizational structure of the project team.

Management process — describes the project’s management, plan and schedule.

# Project Overview

## Project Purpose, Scope, and Objectives

This project will implement a e-commerce web application for small shops. They can advertise and selling their product online to increase their reputation and profit. Customers can buy products to sastify their needs effectively and conveniently through an interface on internet without wasting their time to go to the shop.

## Assumptions and Constraints

- Staff: team with 5 members

- Final product must be releases before final review (around 27/12)

## Project Deliverables

- Project development plan

- Vision document

- Use-case model and description

- Design document (class diagrams, software architecture,…)

- Test plan

- Test cases

- Releases

# Project Organization

## Organizational Structure

**Huỳnh Nhật Nam**

Team leader

Project manager (Primary)

Business Analyst (Secondary)

Implementer

**Nguyễn Phúc Thịnh**

Business Analyst (Primary)

Project manager (Secondary)

Implementer

**Phạm Vũ Duy**

Designer

Implementer

**Hồ Nguyễn Huy Hoàng**

Designer

Implementer

**Mai Đăng Khánh**

Tester

Implementer

## Roles and Responsibilities

**- All team members are implementers**

|  |  |
| --- | --- |
| **Person** | **Role** |
| **Huỳnh Nhật Nam**  **Team leader/Project Manager (primary)**  **Business Analyst (secondary)** | - Write project plan (including assign tasks)  - Monitor and report status (weekly report)  - Coordinate meetings  - Contact point for the project |
| **Nguyễn Phúc Thịnh**  **Business Analyst (primary)**  **Project Manager (secondary)** | - Document requirements (interview customers, etc.)  - Communicate with team members about the requirements  - Coordinate to review requirements |
| **Phạm Vũ Duy, Designer** | - Design the system (components, classes, databases, etc.)  - Design user interface  - Create Software Architecture Document |
| **Hồ Nguyễn Huy Hoàng, Designer** | - Design the system (components, classes, databases, etc.)  - Design user interface  - Create Software Architecture Document |
| **Mai Đăng Khánh, Tester** | - Write test plan and test cases  - Perform system test |
| **All team members, implementers** | - Write source code  - Perform unit test  - Review source code |

# Management Process

## Project Estimates

- Time:

+ 2 Months, 10 Weeks

+ 2/11 – 3/1

- Effort: 10PM

- Cost: 0

- Staff: 5 People

## Project Plan

### Phase Plan

**\* Notes: Time line may bee updated due to their deadlines**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Phase** | **Number of Iterations** | **Project Assignments** | **Start** | **End** |
| Inception | 1 | PA1 | 2/11/2020 | 11/11/2020 |
| Elaboration | 2 | PA2, PA3 | 12/11/2020 | 6/12/2020 |
| Construction | 2 | PA4, PA5, PA6 | 7/12/2020 | 3/1/2021 |

### Iteration Objectives

|  |  |  |  |
| --- | --- | --- | --- |
| **Phase** | **Interations No.** | **Project Assignments** | **Objective to be accomplished** |
| Inception | 1 | PA1 | - Vision document  - Project plan |
| Elaboration | 1 | PA2 | - Revised project plan  - Detailed vision document  - Defines use-case model and use-case specification |
| 2 | PA3 | - Submits use-case specification 2nd time.  - Defines sofware architecture (writes SAD) and class diagrams  - UI prototype |
| Construction | 1 | PA4 | - Revised software architecture document  - Implementation (front-end + back-end) |
| 2 | PA5 | - Testing (test plan, test cases, automated testing) |
| PA6 | - Presentation (PP Slides)  - Final submission |

### Releases

- Time: 7/12/2020 – 22/12/2020

+ First release: End of PA4

+ Second release: End of PA5

### Project Schedule

**\* Notes: Time line may be updated bases on PA deadlines**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Phases** | **Interation No.** | **Tasks and Artifacts** | **Assignee** | **Start Date** | **End Date** |
| Inception | 1 | - Vision document | Nguyễn Phúc Thịnh | 1/11/2020 | 11/11/2020 |
| - Project plan | Huỳnh Nhật Nam |
| - Weekly scrum + report  (Only 1 in Inception) | All team members | 9 PM 9/11/2020 | |
| Elaboration | 1 | - Revised project plan | Huỳnh Nhật Nam | 12/11/2020 | 22/11/2020 |
| - Detailed vision document | Nguyễn Phúc Thịnh |
| - Use-case model, use-case specification | Huỳnh Nhật Nam, Nguyễn Phúc Thịnh |
| - Weekly scrum + report  (Elaboration, Iteration No.1, Week 01) | All team members | 9 PM 13/11/2020 | |
| - Weekly scrum + report  (Elaboration, Iteration No.1, Week 02) | All team members | 9 PM 20/11/2020 | |
| 2 | - 2nd submission use-case document | Huỳnh Nhật Nam, Nguyễn Phúc Thịnh | 23/11/2020 | 6/12/2020 |
| - Defines software architecture | Phạm Vũ Duy, Hồ Nguyễn Huy Hoàng |
| - Class diagrams | Phạm Vũ Duy, Hồ Nguyễn Huy Hoàng |
| - UI prototype | Phạm Vũ Duy, Hồ Nguyễn Huy Hoàng |
| - Weekly scrum + report  (Elaboration, Iteration No.2, Week 01) | All team members | 9 PM 27/11/2020 | |
| - Weekly scrum + report  (Elaboration, Iteration No.2, Week 02) | All team members | 9 PM 4/12/2020 | |
| Construction | 1 | - Revised SAD | Phạm Vũ Duy, Hồ Nguyễn Huy Hoàng | 7/12/2020 | 20/12/2020 |
| - Implementation (Source code) | All team members |
| - Test-plan | Mai Đăng Khánh |
| - Release (See 4.2.3 for better details) | Hồ Nguyễn Huy Hoàng | 14/12/2020 | 20/12/2020 |
| - Weekly scrum + report  (Construction, Iteration No.1, Week 01) | All team members | 9 PM 11/12/2020 | |
| - Weekly scrum + report  (Construction, Iteration No.1, Week 02) | All team members | 9 PM 18/12/2020 | |
| 2 | - Testing | Mai Đăng Khánh | 21/12/2020 | 27/12/2020 |
| - Prepares presentation slides (PP) | Hồ Nguyễn Huy Hoàng, Huỳnh Nhật Nam, Phạm Vũ Duy, Nguyễn Phúc Thịnh |
| - Fix errors and release | All team members | 21/12/2020 | 3/1/2021  (base on final deadline) |
| - Weekly scrum + report  (Construction, Iteration No.2, Week 01) | All team members | 9 PM 25/12/2020 | |
| - Weekly scrum + report  (Construction, Iteration No.2, Week 02) | All team members | 9 PM 1/1/2021 | |
| - Final Submission  - Presentation | All team members | 28/12/2020 | 3/1/2021 |

### Project Resourcing

- Staff: 5 people:

+ 2 Project manager

+ 2 Business Analyst

+ 2 Designer

+ 1 Tester

+ 5 implementers : HTML/CSS/Javascripts skills

- Training: self-training, self-studying, studying in class.

## Project Monitoring and Control

### Requirements Management

Changes to requirements will be captured and requirements will be reviewed as soon as possible and will be documented.

### Reporting and Measurement

At the end of each iteration (2 weeks) there will be 2 weekly reports.

There will be weekly scrums to keep track of the progress. Changes to project plan will be made if necessary

### Risk Management

Risks will be identified in Inception Phase using the steps identified in the RUP for Small Projects activity “Identify and Assess Risks”. Project risk is evaluated at least once per iteration and documented in this table. The risks of the greatest magnitude are listed first in the table.

|  |  |  |
| --- | --- | --- |
| **Risk Ranking (High, Medium, Low)** | **Risk Description and Impact** | **Mitigation Strategy and/or Contingency Plan** |
|  |  |  |

### Configuration Management

- Github: storing source code and documents

- Trello: managing project

- Slack, Messenger: chatting and discussing

- Discord: Weekly scrum by voice chat