
<Group07>

<ShopNowHub>

Software Development Plan (Small Project)

Version <1.6>

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Revision History

Date	Version	Description	Author
25/10/2023	1.0	Writing Part 4.3	Lưu Đình Huy
25/10/2023	1.1	Writing Part 1 and Part 2	Quách Tấn Dũng
25/10/2023	1.2	Writing Part 3	Phạm Trần Minh Duy
1/11/2023	1.3	Editing Part 4.3	Lưu Đình Huy
1/11/2023	1.4	Editing Part 1 and Part 2	Quách Tấn Dũng
1/11/2023	1.5	Writing Part 4.1 and Part 4.2	Phạm Trần Minh Duy
1/11/2023	1.6	Editing Part 4.1 and Part 4.2	Phạm Trần Minh Duy
1/11/2023	1.7	Editing Part 3	Phạm Trần Minh Duy
7/11/2023	1.8	Updating Revision History	Lưu Đình Huy

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Software Development Plan (Small Project)

1. Introduction

1.1 Purpose

The purpose of the *Software Development Plan* is to gather all information necessary to control the project. It describes the approach to the development of the software and is the top-level plan generated and used by managers to direct the development effort.

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, and what other activities they are dependent upon.

1.2 Scope

This *Software Development Plan* describes the overall plan to be used by the ShopNowHub project, including deployment of the product..

The plans as outlined in this document are based upon the product requirements as defined in the *Vision Document*.

1.3 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.

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2. Project Overview

2.1 Project Purpose, Scope, and Objectives

- Purpose:
 - Real-World Relevance: E-commerce has become an integral part of our daily lives, and understanding the dynamics of online shopping is highly relevant in today's digital age.
 - Practical Skills: Building an online shopping website provides us with practical experience in web development, design, and management, which are valuable skills in the job market.
 - Entrepreneurship: It encourages entrepreneurial thinking by allowing us to explore the complexities of running a business, managing inventory, and serving customers online.
 - Problem Solving: We can encounter and tackle real-world problems that arise during the development and operation of an online shopping platform, enhancing our problem-solving skills.
 - Innovation: It encourages creativity and innovation as we need to seek to differentiate our online store from competitors.
- Objectives: demonstrate the critical importance of e-commerce in people's daily lives
- Scope: an online shopping website with completed pivotal roles of various stakeholders: the admin who manages the site, users who shop for products, sellers who list and sell items, and guests who browse.

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2.2 Assumptions and Constraints

2.2.1 Assumptions

1. **User Internet Access:** all users have reliable access to the internet to use the website.
2. **Website Maintenance:** a team will be available for regular website updates and maintenance.
3. **Customer Support:** a team will be available to provide customer support services.

2.2.2 Constraints

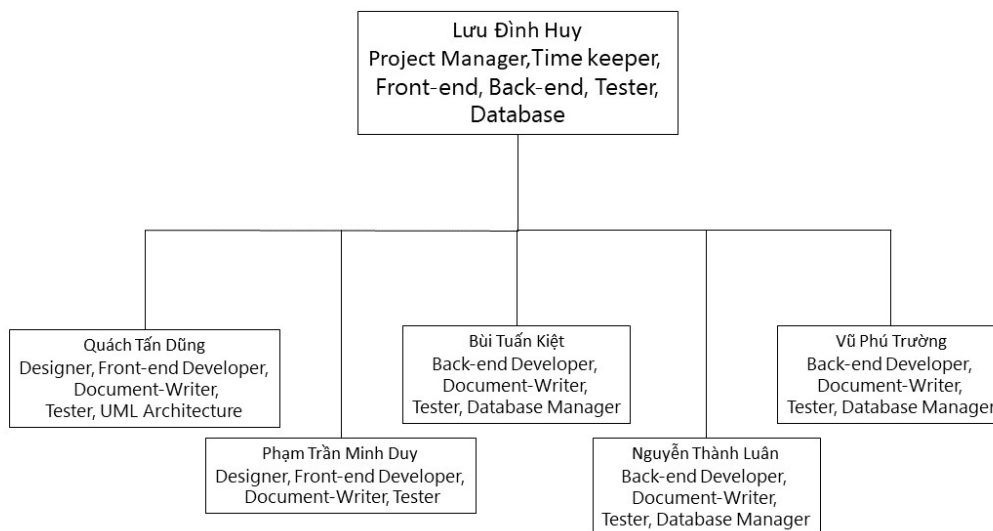
1. **Regulatory Compliance:** the website must comply with all legal requirements of the Socialist Republic of Vietnam.
2. **User Interface:** website's user interface should be engaging, intuitive, high-quality visuals.
3. **Cross-Platform Compatibility:** the website can be used on multiple browsers (Chrome, Firefox, Safari,...) on multiple devices.

2.3 Project Deliverables

- The final deliverable of this project is a website with completed key features and documents.
- Deliverables are delivered towards the end of the iteration, as specified in section 4.2.4 *Project Schedule*

3. Project Organization

3.1 Organizational Structure



3.2 Roles and Responsibilities

Person	Role
Lưu Đình Huy	Planning/scheduling activities Divide work among members Customer Surveys

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	Designing and maintaining the server infrastructure Conducting the final product examination Provide assistance to other roles as necessary.
Phạm Trần Minh Duy	Responsible for ensuring the website is visually consistent and user-friendly Conducting cross-browser testing Documenting, examine the product Work on product displays, images, typography, color schemes, and branding elements
Quách Tấn Dũng	Translating design mockups into functional web pages Optimizing the website for various devices and screen sizes Implementing interactive features Designing UML Documenting, examine the product
Bùi Tuấn Kiệt	Managing databases to store product information, customer data, and order details Create and optimize APIs for functionalities Documenting, examine the product
Vũ Phú Trường	Optimizing website performance Ensuring data backup and recovery Monitoring and logging for system reliability Documenting, examine the product
Nguyễn Thành Luân	Secure user authentication and authorization mechanisms Integrate payment gateways for safe and seamless online transactions Prioritize website security by guarding against vulnerabilities Documenting, examine the product

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4. Management Process

4.1 Project Estimates

Orders	Features	Hours per Feature	Budget per Hours (VND)	Total budget per feature (VND)	Note
1	User Management	2	100000	200000	Admin
2	Content Management	2	100000	200000	Admin
3	Manage Trending Section	1	100000	100000	Admin
4	Account Management	2	100000	200000	Buyer
5	View product	1	100000	100000	Buyer
6	Manage order	2	100000	200000	Buyer
7	Payment	2	100000	200000	Buyer
8	Rating	1	100000	100000	Buyer
9	Search	1	100000	100000	Buyer
10	Enable Sell Products	1	100000	100000	Seller
11	Order Management	1	100000	100000	Seller
12	Update Products	1	100000	100000	Seller
13	Chat with Customers	1	100000	100000	Seller
14	Login/Register	1	100000	100000	Seller
15	View Products	1	100000	100000	Guest
16	Sign Up and Log In	1	100000	100000	Guest
17	Search	1	100000	100000	Guest
Total project budget (VND)				2200000	

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4.2 Project Plan:

- PA0 - 2 weeks:

Start: 09/10/2023

End : 21/10/2023

Task: + Guide team members on the essential tools for the project such as Slack, Jira, Github, VS Code
(*Lưu Đình Huy*)

+ Research and follow the project management instructions provided.

(*Phạm Trần Minh Duy, Quách Tấn Dũng, Bùi Tuấn Kiệt, Nguyễn Thành Luân, Vũ Phú Trường*)

Documentation: Weekly Report

Name	↓ :	Oct 08, 2023							Oct 15, 2023						
		S	M	T	W	T	F	S	S	M	T	W	T	F	S
Trường (following guidances given)															
Luân (following guidances given)															
Kiệt (following guidances given)															
Huy (guiding team members and managing)															
Duy (following guidances given)															
Dũng (following guidances given)															

- PA1 - 2 weeks

Start: 23/10/2023

End : 04/11/2023

Task: + Project Introduction, Project Overview (*Quách Tấn Dũng*)
+ Project Organization, Management Process (Project Estimates, Project Plan)
(*Phạm Trần Minh Duy*)

+ Management Process (Project Monitoring and Control) (*Lưu Đình Huy*)

+ Vision's Introduction, Positioning (*Nguyễn Thành Luân*)

+ Stakeholder and User's Descriptions, Product Overview (*Bùi Tuấn Kiệt*)

+ Product Features, Other Product Requirements (*Vũ Phú Trường*)

Documentation: Project Plan and Vision Document

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Name	Oct 22, 2023							Oct 29, 2023						
	S	M	T	W	T	F	S	S	M	T	W	T	F	S
Lưu Đình Huy														
Phạm Trần Minh Duy														
Quách Tấn Dũng														
Bùi Tấn Kiệt														
Nguyễn Thành Luân														
Vũ Phú Trường														

- **PA2 - 2 weeks**

Start: 06/11/2023

End : 18/11/2023

Task: + Modeling and specifying use cases for the Admin role (Quách Tấn Dũng)
+ Modeling and specifying use cases for the Seller role (Bùi Tấn Kiệt)
+ Modeling and specifying use cases for the Buyer role (Vũ Phú Trường)
+ Modeling and specifying use cases for the Guest role (Nguyễn Thành Luân)
+ Validate, complete and finalize all the roles (Lưu Đình Huy)
+ Documenting and report (Phạm Trần Minh Duy)

Documentation: Use-case Specification

Name	Nov 05, 2023							Nov 12, 2023						
	S	M	T	W	T	F	S	S	M	T	W	T	F	S
Admin role (Quách Tấn Dũng)														
Seller role (Bùi Tấn Kiệt)														
Buyer role (Vũ Phú Trường)														
Guest role (Nguyễn Thành Luân)														
Validate, complete all the roles (Lưu Đình Huy)														
Documenting (Phạm Trần Minh Duy)														

- **PA3 - 2 weeks**

Start: 20/11/2023

End : 02/12/2023

Task: + Introduction, Architectural Goals and Constraints (Phạm Trần Minh Duy)
+ Use-Case Model, Logical View (Bùi Tấn Kiệt)
+ Deployment, Implementation View (Vũ Phú Trường)
+ Class Diagram (Lưu Đình Huy, Quách Tấn Dũng, Nguyễn Thành Luân)
+ Checking SAD in total (Lưu Đình Huy)

Documentation: Software Architecture Document

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ID	Name	Nov 19, 2023							Nov 26, 2023						
		S	M	T	W	T	F	S	S	M	T	W	T	F	S
1	Introduction, Architectural Goals and Constrains														
2	Use-Case Model, Logical View (Bùi Tuấn Kiệt)														
3	Deployment, Implementation View (Vũ Phú Trường)														
4	Class Diagram (Luu Đình Huy, Quách Tấn Dũng)														
5	Checking SAD in total (Luu Đình Huy)														

- PA4 - 2 weeks

Start: 04/12/2023

End : 16/12/2023

Task: + Design UI for Admin role (Quách Tấn Dũng)
+ Design UI for Seller role (Bùi Tuấn Kiệt)
+ Design UI for Buyer role (Vũ Phú Trường)
+ Design UI for Guest role (Nguyễn Thành Luân)
+ Validate, complete and finalize (Luu Đình Huy)
+ Documenting and report (Phạm Trần Minh Duy)

Documentation:

Name		Dec 03, 2023							Dec 10, 2023						
		S	M	T	W	T	F	S	S	M	T	W	T	F	S
Admin role (Quách Tấn Dũng)															
Seller role (Bùi Tuấn Kiệt)															
Buyer role (Vũ Phú Trường)															
Guest role (Nguyễn Thành Luân)															
Validate, complete all the roles (Luu Đình Huy)															
Documenting (Phạm Trần Minh Duy)															

- PA5 - 2 weeks

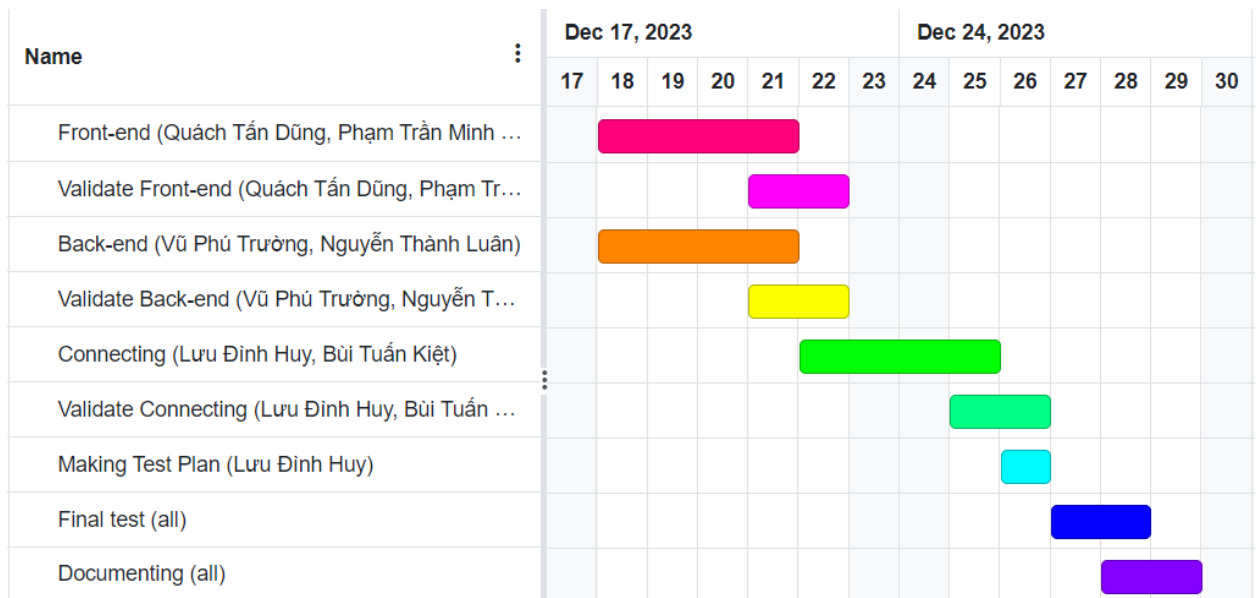
Start: 18/12/2023

End : 30/12/2023

Task: + Coding Front-end and validating afterward (Quách Tấn Dũng, Phạm Trần Minh Duy)
+ Code Back-end, Database and validating afterward (Vũ Phú Trường, Nguyễn Thành Luân)
+ Connecting Front-end, Back-end and Database together and validating afterward (Luu Đình Huy, Bùi Tuấn Kiệt)
+ Making Test Plan for validation (Luu Đình Huy)
+ Final Test (all of the members)
+ Documenting (all of the members)

Documentation: Test Plan Document, Coding Report, Code folder (on Github)

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4.3 Project Monitoring and Control

Requirements Management

The requirements for this system are captured in the Vision document. Requested changes to requirements are captured in Change Requests, and are approved as part of the Configuration Management process.

4.3.1 *Reporting and Measurement*

Updated cost and schedule estimates, and metrics summary reports, will be generated at the end of each iteration.

The Minimal Set of Metrics, as described in the RUP [Guidelines: Metrics](#), will be gathered on a weekly basis. These include:

Earned value for completed tasks. This is used to re-estimate the schedule and budget for the remainder of the project, and/or to identify need for scope changes.

Total defects open and closed – shown as a trend graph. This is used to help estimate the effort remaining to correct defects.

Acceptance test cases passing – shown as a trend graph. This is used to demonstrate progress to stakeholders.

In addition, overall costs will be monitored against the project budget.

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4.3.2 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
High	<ul style="list-style-type: none"> Description: Seminar deadline overlap. Impact: Causes stress on team members and time lost on developing the product. 	Mitigation Strategy: <ul style="list-style-type: none"> Keep track of deadlines and project. Break down work into smaller tasks for flexibility in time planning. Contingency Plan: <ul style="list-style-type: none"> Prioritize each project and task by urgency. Be honest with your team members and ask for help when needed.
High	<ul style="list-style-type: none"> Description: Data loss due to technical problems. Impact: Have to start from scratch, lose valuable time. 	Mitigation Strategy: <ul style="list-style-type: none"> Always make a data backup after some time or milestone. Contingency Plan: <ul style="list-style-type: none"> Prioritize remake key features and all requirements of the seminar. Be honest with your team members and ask for help when needed.
High	<ul style="list-style-type: none"> Description: Miscommunication within the project team. Impact: Leading to missed requirements, product will not meet expectation. 	Mitigation Strategy: <ul style="list-style-type: none"> Ensure a detailed, shared requirements document with updates logged clearly Conduct daily stand-ups for team updates and address immediate blockers. Hold regular review meetings to align deliverables with project scope. Clearly delineate roles and responsibilities to avoid task overlaps. Utilize tools like JIRA for task tracking and Slack for team communication. Establish channels specifically for queries and clarifications. Engage with stakeholders consistently to validate alignment and gather feedback. Implement a peer review system, allowing team members to check and validate each other's work against project requirements.
Medium	<ul style="list-style-type: none"> Description: Lack of necessary skills and knowledge Impact: Work progress will slow down and maybe stagnate. 	Mitigation Strategy: <ul style="list-style-type: none"> Go to class to learn and get help from Lecturer and TA. Read more documents and books to gain more knowledge. Practice to gain necessary skills.
Low	<ul style="list-style-type: none"> Description: Some members cannot work because of various reasons. Impact: Lack of personnel will slow down progress. 	Mitigation Strategy: <ul style="list-style-type: none"> Break down work into smaller tasks for flexibility in re-assigning work. Contingency Plan: <ul style="list-style-type: none"> Remaining team members try to share the workload of the absent one.
Low	<ul style="list-style-type: none"> Description: Cannot schedule a meeting because of a difference in personal time. Impact: Lack of personnel will slow down progress. 	Mitigation Strategy: <ul style="list-style-type: none"> Schedule meeting weeks in advance for team members to resolve conflicting personal responsibilities and work commitments. Break down work into smaller tasks for flexibility in re-assigning work. Contingency Plan: <ul style="list-style-type: none"> Remaining team members try to share the workload of the absent one.

4.3.3 Configuration Management

Appropriate tools will be selected which provide a database of Change Requests and a controlled versioned repository of project artifacts.

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All source code, test scripts, and data files are included in baselines. Documentation related to the source code is also included in the baseline, such as design documentation. All customer deliverable artifacts are included in the final baseline of the iteration, including executables.