
Newbies

NBTech
Software Development Plan (Small Project)
Version 1.0

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Revision History

Date	Version	Description	Author
11-06-2025	1.0	Overview and fulfill some information about project plan	Nguyễn Thanh Owen Nguyễn Ngọc Hưng Phát Lê Nguyên Thảo

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Software Development Plan (Small Project)

1. Introduction

The introduction of the **Software Development Plan** provides an overview of the entire document. It includes the purpose, scope, definitions, acronyms, abbreviations, references, and overview of this **Software Development Plan**.

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 NBTech 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.

2. Project Overview

2.1 Project Purpose, Scope, and Objectives

The primary purpose of the NBTech project is to develop an e-commerce website that specializes in selling electronic products, with a strong focus on laptops. As students, we recognize the essential role laptops play in both academic and professional contexts. This platform aims to assist users selecting and purchasing laptops that align with their needs and budget.

The objectives of the project include:

- Providing a secure platform for users to explore and purchase laptops.
- Offering features such as user authentication, product browsing, filtering, and detailed product reviews.
- Enabling shopping experiences through cart management, order tracking, and secure payment options.
- Providing administrators with tools to manage users, products, and orders.
- Expected deliverables:
 - A fully functional website hosted locally on Window OS with:
 - User modules: registration, login, password recovery, product interaction, and

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- shopping features.
 - Admin modules: user management, product and inventory management, review moderation, and order control, statistical reports and analytics.
- A structured and responsive UI design for both user and admin interfaces.
- Functional search, filter, and wishlist systems to enhance user experience.
- Documentation including system architecture (frontend, backend, database, hosting environment), feature specifications (user and admin functions), and user manuals.

2.2 Assumptions and Constraints

- Budget: 0\$
 - Human Resources:
 - 5 members (can support each other among the roles)
 - 3 main developers
 - 2 main designers
 - Software Tools:
 - VS Code (HTML, CSS, Javascript)
 - Bootstrap
 - GitHub
 - Figma
 - Hosting and Services:
 - Localhost on Windows OS.
 - Hardware:
 - 5 personal laptops
 - Supporting Tools:
 - Google Docs
 - Google Sheets
 - Google Drive
 - AI tools
 - Discords
 - Chatbox (Facebook Messenger, Discord)
- Constraints:
 - Time: The project must be completed within a fixed timeline for about 10 weeks.
 - Resource: The team uses personal laptops and free tools
 - Feature: Due to limited time and resources, the system includes only essential e-commerce features.

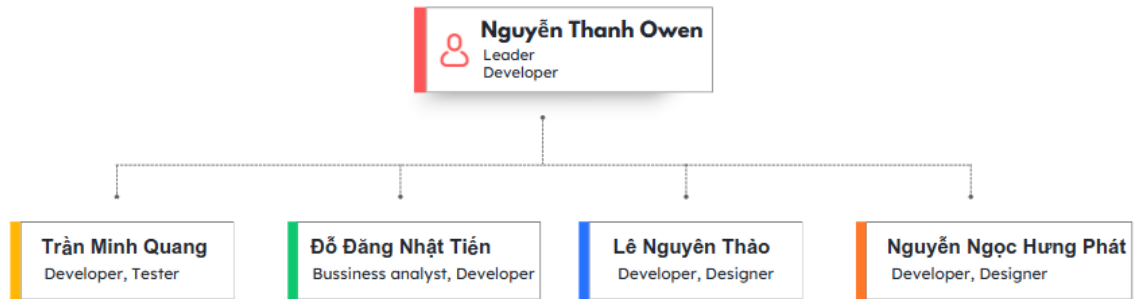
2.3 Project Deliverables

Deliverables for each project phase are identified in the Development Case. Deliverables are delivered towards the end of the iteration, as specified in section 4.2 *Project P*.

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3. Project Organization

3.1 Organizational Structure



3.2 Roles and Responsibilities

Person	Role	Description
Nguyễn Thanh Owen	Leader, Developer	Responsible for leading the development of the website, managing both frontend and backend tasks. Overseeing project planning, feature implementation, and team coordination. Responsible for developing core features of the e-commerce website.
Trần Minh Quang	Developer, Tester	Responsible for developing core features of the e-commerce website. Testing features for bugs, usability, and performance.
Đỗ Đăng Nhật Tiến	Business analyst, Developer	Responsible for gathering requirements and analyzing business needs for the e-commerce website. Responsible for implementing website features based on requirements.
Lê Nguyên Thảo	Designer, Developer	Planning to design and develop a simple e-commerce website with user-friendly interface and features.
Nguyễn Ngọc Hưng Phát	Designer, Developer	

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4. Management Process

4.1 Project Estimates

None

4.2 Project Plan

Week	Date	Event	Phase	Description
W01	2025-05-17	PA0 out	Inception	Project initiation: define scope, gather initial requirements, prepare PA0 deliverable.
W02	2025-05-24		Inception	Continue to analyze requirements, complete PA0.
W03	2025-05-31	PA0 due PA1 out	Elaboration	Detail requirements analysis, system architecture design, start PA1.
W04	2025-06-07		Elaboration	Continue to detailed design, design UI, prepare PA1 deliverable.
W05	2025-06-14	PA1 due PA2 out	Elaboration to Construction	Finish analysis, design UI, start simple coding, prepare PA2
W06	2025-06-21		Construction	Develop main features, code modules.
W07	2025-06-28		Construction	Continue to develop main features, code modules.
W08	2025-07-05		Construction	Continue to develop main features, code modules.
W09	2025-07-12		Construction	Continue to develop main features, code modules.
W10	2025-07-19	PA2 due PA3 out	Construction	Continue coding and testing, prepare PA3.
W11	2025-07-26		Construction	Continue development and testing.
W12	2025-08-02	PA3 due PA4 out	Construction	Complete features, prepare PA4 deliverable. Prepare demo, documentation
W13	2025-08-09		Construction	Prepare demo, documentation

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W14	2025-08-16	PA4 due PA5 out	Construction	Preparation for an interview.
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Sprint 1: PA0

- Start: 17-05-2025
- End: 31-05-2025
- Tasks:
 - Prepare introduction (T1)
 - Prepare target users and environments (T2).
 - Prepare key features:
 - Users (T3)
 - Product management admin (T4)
 - User management admin (T5).
 - Weekly report (T6).
 - Prepare team contract (T7)
 - Design UI using Figma:
 - Login, Logout, Forgot Password (T8)
 - Homepage (T9)
 - Product page, About us page (T10)
 - Detailed product page (T11)
 - Order, account, cart, page (T12)

Person	Week 1							Week 2							
	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	
Thảo	T6	T7						T6	T11						T6
Phát		T1			T2				T12						
Tiến		T3							T10						
Quang		T3							T8						
Owen		T4				T5			T9						Submit
All members								Review and Feedback							

Sprint 2: PA1

- Start: 01-06-2025
- End: 14-06-2025
- Tasks:
 - Vision document (T1)
 - Project plan (T2)
 - Design database (T3)
 - Design UI using HTML/CSS/Javascript
 - Login, Logout, Forgot Password (T4)
 - Homepage (T5)
 - Product page (T6)
 - Detailed product page (T7)
 - Order, account, cart, page (T8)
 - Weekly report (T9)

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Person	Week 1							Week 2							
	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	
Thảo	T9	T2						T9		T8					T9
Phát		T2							T7						
Tiến		T1							T6						
Quang		T1						T3	T4						
Owen		T2						T3	T5					Submit	
All members								Review and Feedback T1, T2							

Sprint 3: PA2

- Start: 14-06-2025
- End: 19-07-2025
- Task:
 - Revised project plan (T1)
 - Detailed vision document (T2)
 - Use-case model (T3)
 - Use-case specification (T4)
 - Weekly report (T5)
 - Design Account Management Admin Page (T6)
 - Design Product Management Admin Page (T7)
 - Write API for managing accounts (T8)
 - Write API for managing products (T9)
 - Write API for managing orders (T10)
 - Write API for managing discounts (T11)
 - Write API for managing reviews (T12)
 - Write API for managing carts (T13)
 - Write API for managing categories (T14)
 - Integrate frontend with backend APIs. (T15)

Person	Week 1							Week 2							
	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun		Mon	Tue	Wed	Thu	Fri	Sat
Thảo	T5	T7						T1	T5	T4			T12		
Phát	T7							T1		T4			T10		
Tiến	T6							T2		T3		T4	T11		
Quang	T6							T2		T3		T4	T8		
Owen	T7							T1		T4			T9		
All members	Review							Review							

Person	Week 3							Week 4							
	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	
Thảo	T5	T12						T5	T12			T13			
Phát	T10										T13				
Tiến	T11										T14				
Quang	T8										T14				
Owen	T9										T13				
All members	Review							Review				Review			

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Person	Week 5						
	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Thảo	T5	T15					T5
Phát	T15						
Tiến	T15						
Quang	T15						
Owen	T15						Submit
All members	Review			Review T1, T2, T3, T4			

Sprint 4: PA3

- Start: 19-07-2025
- End: 02-08-2025
- Task:
 - Use-case specification (T1)
 - Define software architecture (T2)
 - Class diagrams (T3)
 - Weekly Report (T4)
 - User testing (T5)
 - Product management testing (T6)
 - Admin management testing (T7)

Person	Week 1							Week 2							
	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	
Thảo	T4	T1		T2				T4	T7			T6			T4
Phát		T1		T2				T6							
Tiến		T3				T5									
Quang		T3				T7									
Owen		T1		T2				T6							Submit
All members		Review							Review and Feedback T1, T2, T3						

Sprint 5: PA4

- Start: 02-08-2025
- End: 16-08-2025
- Task:
 - Revise SAD (T1)
 - UI prototype (T2)
 - Weekly Report (T3)
 - Testing and Fixing (T4)

Person	Week 1							Week 2							
	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	
Thảo	T3	T1						T3	T4						T3
Phát		T1						T4							
Tiến		T2						T4							
Quang		T2						T4							
Owen		T1			T2			T4						Submit	
All members	Review							Review and Feedback T1, T2, T3							

Sprint 6: PA5

- Start: 16-08-2025

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- End: Before final exam
- Task:
 - Prepare for the presentation:
 - Testing document: Test plan, Test case, Bug report, Test summary report.
 - Source code: remove Debug, Release, node_modules folders before compressing.
 - Project Contribution.

4.3 Project Monitoring and Control

4.3.1 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.

4.3.2 Reporting and Measurement

None

4.3.3 Risk Management

Risks will be identified in the 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	Team members miss deadlines due to other academic workload – this delays project progress.	Define clear tasks on Trello, build in buffer time, and conduct weekly progress check-ins.
High	Lack of technical skills (backend, database, frontend) – leads to poor-quality or delayed code.	Use tutorials and templates, and seek early help from the instructor.
Low	Team conflicts or lack of communication – results in misunderstandings.	Schedule regular team meetings (weekly or biweekly). Use clear communication channels like Facebook Messenger, Discord.

4.3.4 Configuration Management

None