

CAPSTONE PROJECT REPORT

Report 2 – Project Management Plan

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I. Record of Changes

Date	A* M, D	In charge	Change Description

*A - Added M - Modified D - Deleted

II. Project Management Plan

1. Overview

1.1 Scope & Estimation

*1 man-day of team = 8 hours (From Monday to Friday 1 man-day of team = 3,5 hours because all members have to learn Korean, on Saturday and Sunday man-days of team = 4 hours so average per person per week is 3,6 man-days).

- Effort includes analyzing, designing, coding, testing.
- Man-days capacity of team (man-days): 3,6 (days/week) * 6 (member) * 14 (weeks) = 302 (man-days)

#	WBS Item	Complexity	Est. Effort (man-days)
1	Client Feature		
1.1	Homepage	Complex	10
1.2	Campaign Detail	Complex	10
1.3	Project List	Complex	9
1.4	Project Detail	Complex	10
1.5	Ambassador List	Medium	7
1.6	Ambassador Profile/ System User Profile	Medium	7
1.7	Ranking page	Medium	7
1.8	Challenge List	Medium	7
1.9	Challenge Detail	Complex	10
1.10	Public news list	Medium	7
1.11	Public news details	Medium	6
2	Authentication		
2.1	Login	Medium	7
2.2	Register	Medium	7
2.3	VerifyOTP	Simple	3
2.4	ForgotPassword	Simple	3
3	Account Profile		
3.1	Profile Page	Complex	10
3.2	Profile Edit Page	Medium	7

3.3	Donation History	Medium	6
3.4	ChangePassword	Simple	5
4	Account Management		
4.1	Dashboard	Complex	7
4.2	System User List	Simple	4
4.3	Staff Account List	Medium	5
4.4	Staff Account Detail	Simple	3
5	CampaignManagement		
5.1	Campaign List (Admin)	Simple	5
5.2	Campaign Detail	Simple	5
5.3	New Campaign	Simple	5
6	ProjectManagement		
6.1	New Project	Complex	10
6.2	Project List	Medium	7
6.3	Project Detail/Update	Complex	8
6.4	New Budget	Medium	5
6.5	Budget Detail/Update	Medium	5
6.6	Budget List	Simple	3
6.7	New Sponsor	Medium	5
6.8	Sponsor Detail/Update	Simple	3
6.9	Sponsor List	Simple	3
6.10	New Expense	Medium	3
6.11	Expense Detail/Update	Simple	5
6.12	Expense List	Simple	5
6.13	Tracking List	Simple	5
6.14	New Tracking	Medium	6
6.15	Tracking Detail	Simple	5
6.16	Member List	Simple	5

6.17	New Member	Medium	6
6.18	Project Donation List	Simple	4
7	NewManagement		
7.1	New News	Medium	7
7.2	News Detail/Update	Simple	5
7.3	News List	Simple	5
8	Category Management		
8.1	New Category	Simple	3
8.2	Category Detail/Update	Simple	3
8.3	Category List	Simple	3
	Total effort estimate		292

Table 2.1 Scope & Estimation

1.2 Project Objectives

#	Testing Stage	Test Coverage	No. of Defects	% of Defect	Notes
1	Unit Test	100%	40	30%	
2	Integration Test	100%	60	50%	
3	System Test	100%	10	20%	
4	Acceptance Test	100%	0	0%	

Table 2.2 General of Project Objectives

1.3 Project Risks

#	Risk Description	Impact	Possibility	Response Plans
1	End user does not confirm acceptance	High	High	Stick to requirements and communicate regularly to ensure that the business requirements are met

2	Misidentification of security-related code issues	High	High	Identify security-related issues and make quick corrections.
3	Members have argued, conflicted with others, leads to stressful working environments.	Medium	High	Define clear tasks for each member and agree on ideas before starting work.
4	Illness or absence of team members so that they cannot complete tasks under deadline.	Low	Medium	Members have to notify the team about the absence period and the plan of how to keep up with the work process.
5	Change requirements	High	High	Members engage in discussions regarding the prioritization of requirements desired by the staff for modification and addition. Subsequently, these requirements are incorporated into each sprint to execute high-priority tasks.

Table 2.3 Project Risks

2. Management Approach

2.1 Project Process

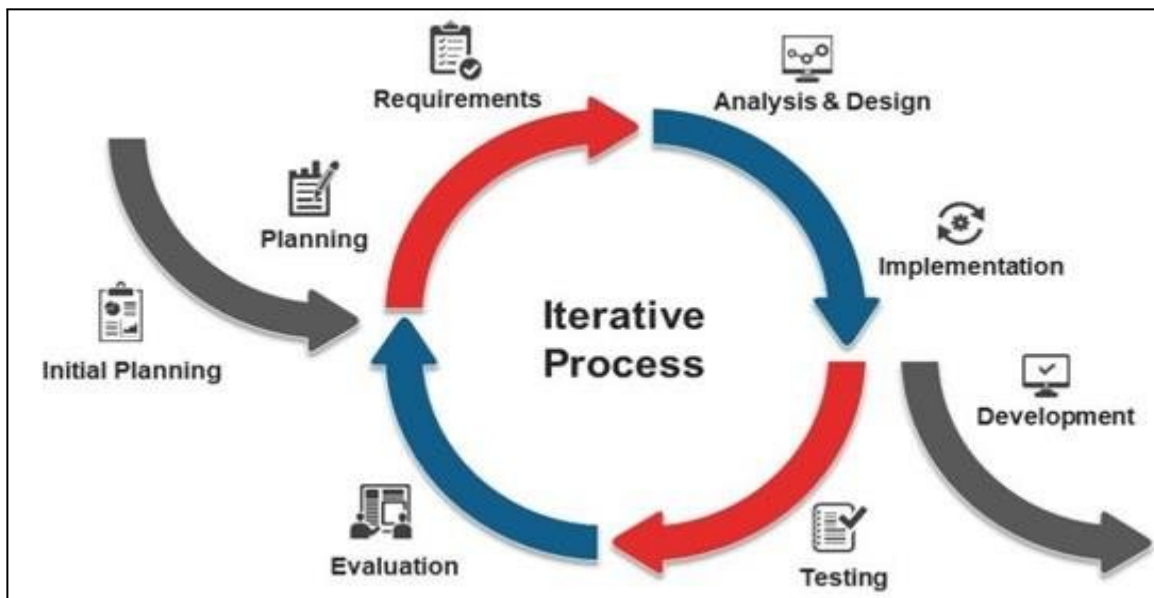


Image 2.1 Project Process

After carefully studying the software development model, the project will use the Iterative Process Model. This project chooses Iterative Process Model:

- Project members have understood and are familiar with it
- The project has users and participates in support right from the beginning of the project

2.2 Quality Management

2.2.1 Defect Prevention

- If any defect is found, the related person must be notified immediately at that time.
- Defects must be carefully evaluated such as "How bad is the defect and can it damage the system?", "How long is the time to fix that defect?".
- The deadline for fixing the defect must be specified clearly.
- There is always a plan to prepare for what could happen at any time.

2.2.2 Reviewing

- The project manager must be honest and not biased towards any of the project members. If there is an error, the person must immediately notify the person responsible for the defect.
- The person responsible for defects found must-have solutions to fix the defect as quickly as possible.

2.3 Training Plan

Training Area	Participants	When, Duration	Waiver Criteria
Java SpringBoot	AnhTQ, AnhHT	Sprint 0	Mandatory
ReactJS	HieuNH, TruongVX	Sprint 0	Mandatory
Gitlab	All members	Sprint 0	Mandatory

Table 2.4 Training Plan

3. Project Deliverables

#	Deliverable	Due Date	Notes
1	Report 1 - Project introduction	19/5/2024	Overview, Product Information, Product Background,...
2	Report 2 - Project management Plan	03/06/2024	Overview, Management Approach, Project Deliverables,...

3	Report 3 - SRS	17/06/2024	Detail the software requirements specification.
4	Report 4 - SDS	01/07/2024	Provide the software design specification, including architecture.
5	Report 5 - Test Document	21/07/2024	Outline the testing strategy, test cases, and test results.
6	Report 6 - Software User Guides	11/08/2024	Final Codes & Documents, User Guides
7	Report 7 - Final Report	18/08/2024	Final Codes & Documents

Table 2.5 Project Deliverables

4. Responsibility Assignments

4.1 Project Organization

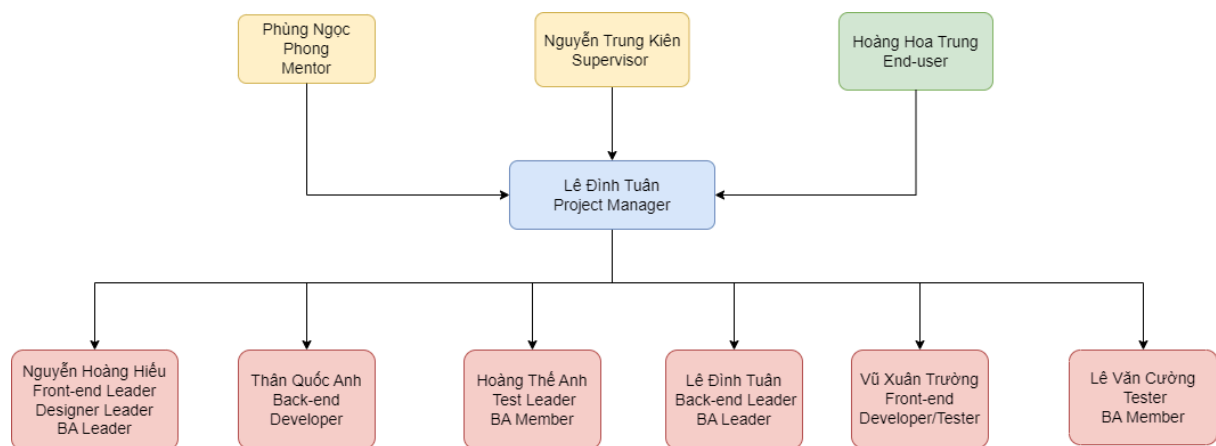


Figure 2.1 Project Organization

4.2 Roles of the members in the project

Member	Roles
Nguyễn Trung Kiên	Supervisor (Lecturer in Software Engineering Faculty of FPT University)

Phùng Ngọc Phong	Mentor (Information Technology Engineer at FPT Software)
Hoàng Hoa Trung	End-user (The end user of the product)
Lê Đình Tuấn	Project Manager, Back-end Leader, BA Leader
Nguyễn Hoàng Hiếu	Front-end Leader, Designer Leader, BA Leader
Thân Quốc Anh	Back-end Developer
Hoàng Thế Anh	Test Leader, BA Member
Vũ Xuân Trường	Front-end Developer, Tester
Lê Văn Cường	Tester, BA Member

Table 2.6 Roles of member

4.3 Responsibility

D~Do; R~Review; S~Support; I~Informed; <blank>- Omitted

Responsibility	TuanLD	HieuNH	TruongVX	AnhTQ	AnhHT	CuongLV	TrungHH
Document and Report							
Project Introduction Document	D	R	S	S	D	S	R
Software Project Management Plan	R	S	S	S	D	S	I
Software Requirement Specification	D	D	S	S	D	D	R
Software Design Document	R	S	I	D	D	S	R

Software Testing Documentation	R	S	D	I	D	D	R
Software User Guide	R	S	S	D	D	D	R
Final Report	R	S	S	S	D	D	I
Presentation Slide	R	R	D	D	D	D	I
Analysis and Design							
System Architecture Design	R	R	I	S	D	D	I
Use Case Diagram	D	S	I	I	S	I	S
Class Diagram	R	S	I	D	D	I	I
Sequence Diagram	R	S	I	D	D	I	I
Main Workflow	D	S	S	S	S	S	I
UI Design	R	D	S	S	S	D	R
Database Design	D	S	S	S	D	S	I
Package Diagram	R	S	S	D	S	D	I
Implement							
Decide technique and tools to be used	D	D	S	S	S	S	I

Keeping track of development work	D	D	I	I	I	I	I
Create coding convention	D	D	S	S	S	S	I
Code back-end web	D	S	S	D	D	S	I
Code front-end	S	D	D	S	S	D	I
Control source code	D	D	S	S	S	S	I
Deploy web to host server	D	S	I	I	I	I	I
Test							
Create test plan	R	S	S	S	D	D	I
Controlling testing activities	R	S	D	S	D	D	I
Create test report	R	S	D	S	D	D	I
Manage test resources	R	S	D	S	D	D	I
Create unit test and bug log	R	S	S	D	D	I	I
Create test case (Integration test)	R	S	S	S	S	D	I
Create test case (System test)	R	S	D	S	S	S	I

Create test case (Acceptance test)	R	S	S	S	D	S	S
Execute test case	R	S	D	D	D	D	D
Report test result	R	S	D	S	D	D	I

Table 2.7 Responsibility Assignments

5. Project Communications

Communication Item	Who/ Target	Purpose	When, Frequency	Type, Tool, Method(s)
Weekly Meeting	All team members	<ul style="list-style-type: none"> - Report the project progress the past week - Discuss all the problems and issues met 	Twice per week	Offline /Online
End User Meeting	TuanLD, HieuNH	<ul style="list-style-type: none"> - Explore and clarify the partner's requirements. - Report progress and demo the features completed over the past week. 	Once per week	Online via Google Meet
Daily Meeting	All team members	<ul style="list-style-type: none"> - Announce work to do - Discuss about problems and tasks - Distribute tasks 	Everyday	Online via Google Meet, Facebook Message
Emergency Meeting	All team members	<ul style="list-style-type: none"> - Find and brainstorm ideas to resolve urgent 	When someone has	Online via Google Meet

		problems and issues	important problems	
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Table 2.8 Project Communications

6. Configuration Management

6.1 Document Management

Management tools:

- Google Docs: Document Reports, User Guide.
- Google Sheets: Project Tracking, Test Cases list.
- Canva: Slide Presentation

6.2 Source Code Management

Management tools:

- GitLab: Manage coding resources

6.3 Tools & Infrastructures

Category	Tools / Infrastructure
Technology	ReactJS, tailwind, style-component (Frontend), Spring boot (Backend)
Database	MySQL
IDEs/Editors	Visual Studio Code, IntelliJ IDEA 2023
Diagramming	DrawIO, Visual Paradigm, LucidChart
Documentation	Google Docs, Google Sheets, Canva
Bugs Management	Gitlab
Version Control	Google Drive (Documents), Gitlab
Project Management	Google Sheets
Testing	Chrome (Version : 119.0.6045.199), Postman, Jmeter, Mockito and Junit 5

Table 2.9. Tools & Infrastructures