MadeinFit

Fitment
Software Development Plan

Version <1.0>

Revision History

Date	Version	Description	Author
27/10/2023	1.0	Project plan	MadeinFit

Table of Contents

Software Development Plan

1. Introduction

Fitment's software development plan outlines our strategy for developing a sophisticated website that combines interior design and furniture retail. It aims to create an excellent user experience for couples, just-married couples, and families. Our core values of innovation, aesthetic integrity, sustainability, customer-centricity, and a global perspective guide this project.

The website will feature user account management, search functionality, e-commerce features, and personalized recommendations. Members and allies will have access to analytics and product management tools. The project emphasizes simplicity, elegance, and coherence.

This plan sets the stage for our website to reflect our brand's dedication to aesthetics, sustainability, and a global perspective, providing a memorable and user-friendly experience.

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 this 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 depend on.

1.2 Scope

This software development plan describes the plan to be used by the Fitment project, including the product deployment.

The details of the individual iterations will be described in the Iteration plans. The plans 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:*** describes the project's purpose, scope, and objectives. It also defines the deliverables that the project is expected to deliver.
- ***Project Organization:*** describes the project team's organizational structure, including members, roles, and responsibilities. This ensures that everyone has a clear understanding of the project's management framework.
- ***Project Plan:*** Details the anticipated steps and schedule for software development. This includes critical phases, milestones, and expected resource utilization.
- ***Project Monitoring and control:*** This component explains how the project will be monitored, assessed, and controlled during development. It encompasses quality control methods, risk management, and the tools employed.

2. Project Overview

2.1 Project Purpose, Scope, and Objectives

Overall, the purpose of this project is to create a furniture-sales website, simulating the process of product trading known as furniture trading. This project is genuinely practical as it brings furniture sellers, factories, or companies a convenient way to connect with their customers, as their clients usually require high customization on the products.

The expected deliverable is a website that is an interaction flow among three parties known as admin - who operate the whole system with account management of both service providers and service users, companies, retailers, or studios to open their business on our provided platform and customers to approach the more convenient way to customize their living space or recent accommodations.

The plan, as outlined in this document, is based on the product requirements as defined in the vision document.

2.2 Assumptions and Constraints

Assumptions:

- ***Project deadline:*** Estimated to be at the end of PA5, before December 31th, 2023.
- ***Cost:***
    - The expenses incurred for acquiring and upkeeping resources will be managed within the project manager's set budget. However, the actual expenses might surpass the budget expectations due to the necessity of repairing resources.
    - The anticipated salary expenses for project team members are projected to align with the planned assumptions. At times, overtime might be necessary to meet project deadlines. Specific details regarding how financial resources will be allocated are described in section 4.1, titled Project Estimates.
    - In summary, the project's overall budget is expected to remain intact, covering the initial capital used without exceeding the set limit.
- ***Resource:***
    - All necessary materials and required equipment will be procured and made accessible for use during the project, supported by our TA's project. Nevertheless, there could be some challenges as most database management tools incur charges.
    - Every team member who participates in the project's initial stages will persist and be involved until the project reaches completion.

Constraints:

The project aims to serve as the conclusive outcome of the subject matter for semester 3, thus necessitating its full availability by the end of this semester.

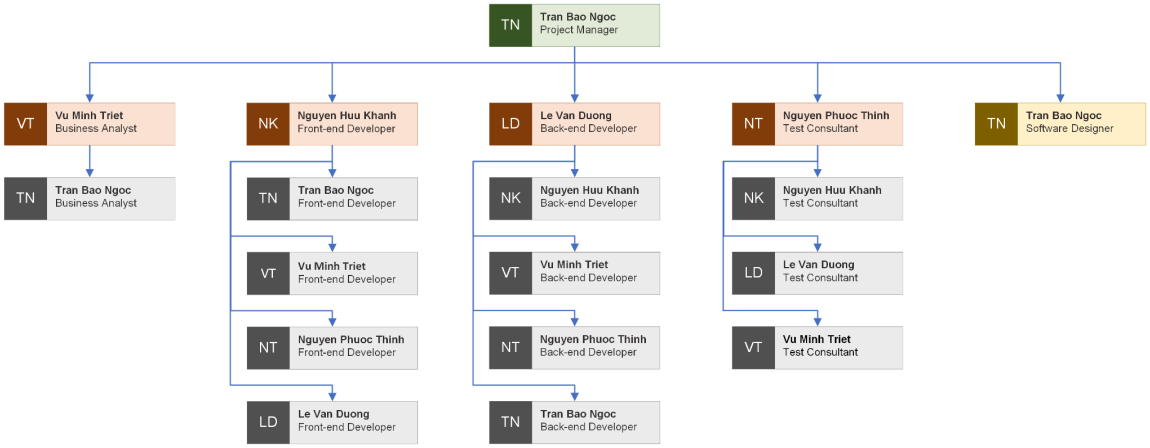
2.3 Project Deliverables

The Development Case specifies the Deliverables for every project phase, encompassing the ultimate version of our website and associated documents.

Deliverables are delivered towards the end of the iteration, as specified in section ***Project plan***.

3. Project Organization

3.1 Organizational Structure



3.2 Roles and Responsibilities

Person	Role
Tran Bao Ngoc, *Project manager*	Play a vital role in orchestrating, organizing, and overseeing the entire project from initiation to completion. Responsible for defining project scopes, establishing objectives, resource allocation, managing timelines, and mitigating potential risks. Leadership extends to facilitating effective communication among team members and stakeholders and driving the collective effort towards the successful outcomes of the project.
UI/UX Designer	Responsible for crafting a visually appealing, intuitive, and user-centric design. While UI designers focus on the aesthetic and visual components, UX focuses on prototyping, ensuring a seamless, immersive, and satisfying user experience.
Vu Minh Triet, *Business analyst*	Act as the bridge between the business stakeholders and the technical team. Responsible for a deep analysis of existing business processes, thorough requirement gathering, and precise translation of these needs into comprehensive technical specifications. Serve to harmonize and bridge the gap between business objectives and technical solutions, ensuring that the final product aligns intricately with the core objectives of the business.
Nguyen Huu Khanh, *Front-end developer*	Translating the designs conceptualized by UI/UX designer into a functional user interface. Proficient in languages such as HTML, CSS, and JavaScript, undertake the responsibility of materializing and refining the user interface. Their meticulous work ensures the accurate translation of design elements and functionalities across various devices and browsers, delivering

Person	Role
	an engaging and accessible user interface.
Le Van Duong *Back-end developer*	Entrusted with the sophisticated underpinnings of the software. Responsible for handling the intricate server-side logic and database operations, orchestrating the core functionalities, server configurations, database management, and expertise in ensuring the overall efficiency, functionality, and performance of the website.
Nguyen Phuoc Thinh *Test consultant*	Dedicated to assuring the quality, reliability, and performance of the website. Precisely check the website to find and fix any issues exist, craft and execute comprehensive testing strategies, develop test cases, and conduct diverse testing methodologies. The primary aim is to unearth, analyze, and communicate findings to support the delivery of an impeccable, high-end quality product through stringent testing practices.

4. Management Process

4.1 Project Estimates

This project has 3 main phases including:

- ***Inception:*** Sprint 0 - Sprint 1/Estimated time: 4 weeks/Estimated cost: $0

This phase includes the project's initial planning and scoping. This estimate is based on discussions with team members, initial requirements analysis, and historical data from similar projects.

- ***Elaboration:*** Sprint 2 - Sprint 3/Estimated time: 4 weeks/Estimated cost: $0

This stage involves detailed planning, architecture design, and requirement gathering. This estimate is based on the breakdown of functionalities and tasks, resource allocation, and historical data on similar projects.

- ***Construction:*** Sprint 4 - Sprint 5/Estimated time: 6 weeks/Estimated cost: $20 for domain

This is the phase where development takes place. This estimate considers the development complexities, testing, reviews, and refinements.

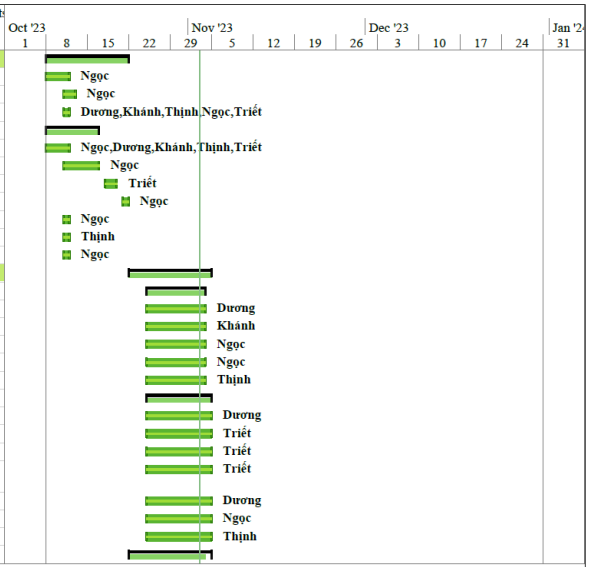
Re-estimation will occur at the end of each major phase, after the completion of each sprint, and when significant changes impact the project scope or resources. These points will enable the project team to maintain accuracy in project cost and schedule estimations and adjust to any evolving circumstances throughout the project lifecycle.

- ***Milestones:*** Re-estimation should occur at the end of each phase (Inception, Elaboration, Construction) to reassess and adjust based on the actual progress and any changes in scope or requirements.
- ***End of each sprint:*** As each sprint finishes, re-estimation should occur to evaluate actual costs, progress, and any modifications in the subsequent sprints.
- ***Change in scope:*** If there are significant changes in project scope or requirements during any phase or sprint, re-estimation is necessary to account for these changes.
- ***Resource allocation:*** If there are changes in resource allocation or unexpected resource constraints, it may require a re-estimation of the remaining project phases or sprints.

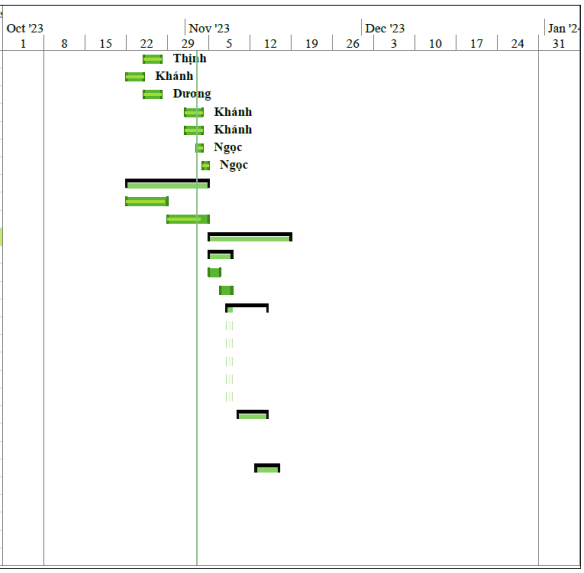
4.2 Project Plan

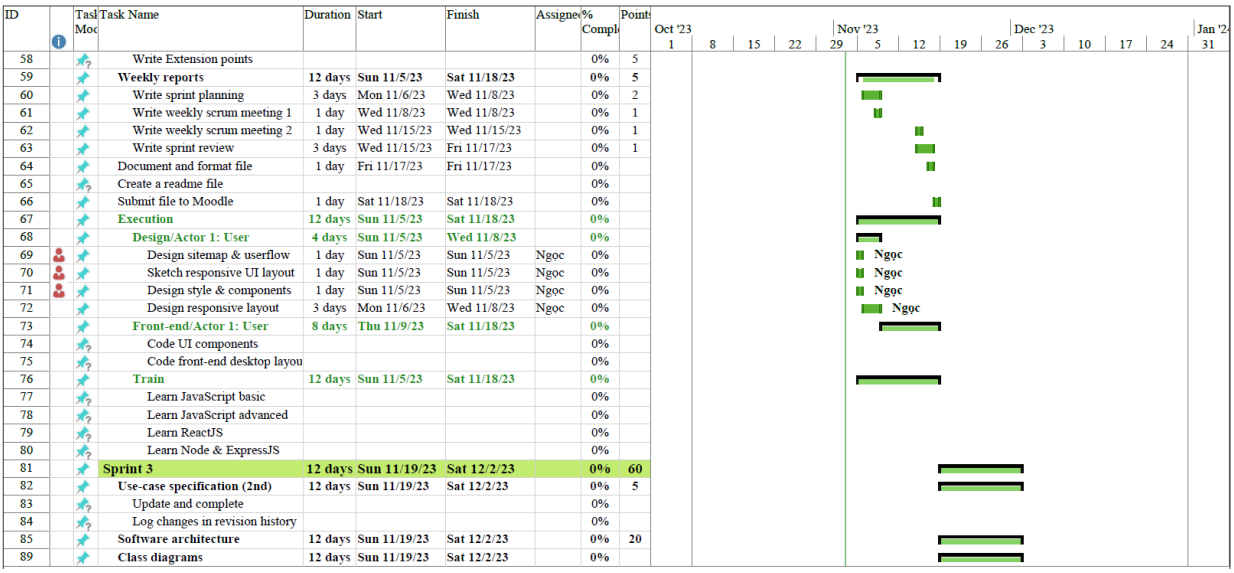
4.2.1 Phase Plan

ID	Task Mode	Task Name	Duration	Start	Finish	Assignee	% Complete	Points
1		**Sprint 0**	**12 days**	**Sun 10/8/23**	**Sat 10/21/23**		**100%**	**30**
2		Write Introduction	4 days	Sun 10/8/23	Wed 10/11/23	Ngọc	100%	5
3		Write Users and environment	2 days	Wed 10/11/23	Thu 10/12/23	Ngọc	100%	5
4		Write Role table	1 day	Wed 10/11/23	Wed 10/11/23	Dương,I	100%	5
5		**Write Key features**	**7 days**	**Sun 10/8/23**	**Mon 10/16/23**		**100%**	**5**
6		Write Users	4 days	Sun 10/8/23	Wed 10/11/23	Ngọc,Dı	100%	3
7		Write Administrator/Allies	4 days	Wed 10/11/23	Mon 10/16/23	Ngọc	100%	2
8		Format and convert document to pc	2 days	Wed 10/18/23	Thu 10/19/23	Triết	100%	3
9		Submit file to Moodle	1 day	Sat 10/21/23	Sat 10/21/23	Ngọc	100%	2
10		Create Jira project and add member	1 day	Wed 10/11/23	Wed 10/11/23	Ngọc	100%	
11		Create GitHub repository	1 day	Wed 10/11/23	Wed 10/11/23	Thịnh	100%	
12		Structure Google Drive folder	1 day	Wed 10/11/23	Wed 10/11/23	Ngọc	100%	
13		**Sprint 1**	**12 days**	**Sun 10/22/23**	**Sat 11/4/23**		**98%**	**45**
14		**Project plan**	**8 days**	**Wed 10/25/23**	**Fri 11/3/23**		**100%**	**20**
15		Write Introduction	8 days	Wed 10/25/23	Fri 11/3/23	Dương	100%	3
16		Write Project overview	8 days	Wed 10/25/23	Fri 11/3/23	Khánh	100%	3
17		Write Project organization	8 days	Wed 10/25/23	Fri 11/3/23	Ngọc	100%	1
18		Write Project plan	8 days	Wed 10/25/23	Fri 11/3/23	Ngọc	100%	8
19		Write Project monitoring & cont	8 days	Wed 10/25/23	Fri 11/3/23	Thịnh	100%	5
20		**Vision document**	**9 days**	**Wed 10/25/23**	**Sat 11/4/23**		**100%**	**20**
21		Write Introduction	9 days	Wed 10/25/23	Sat 11/4/23	Dương	100%	2
22		Write Problem statement	9 days	Wed 10/25/23	Sat 11/4/23	Triết	100%	3
23		Write Product position statemen	9 days	Wed 10/25/23	Sat 11/4/23	Triết	100%	3
24		Write Stakeholders & user descriptions	9 days	Wed 10/25/23	Sat 11/4/23	Triết	100%	3
25		Write Product overview	9 days	Wed 10/25/23	Sat 11/4/23	Dương	100%	3
26		Write Product features	9 days	Wed 10/25/23	Sat 11/4/23	Ngọc	100%	3
27		Write Non-functional requireme	9 days	Wed 10/25/23	Sat 11/4/23	Thịnh	100%	3
28		**Weekly reports**	**12 days**	**Sun 10/22/23**	**Sat 11/4/23**		**100%**	**5**

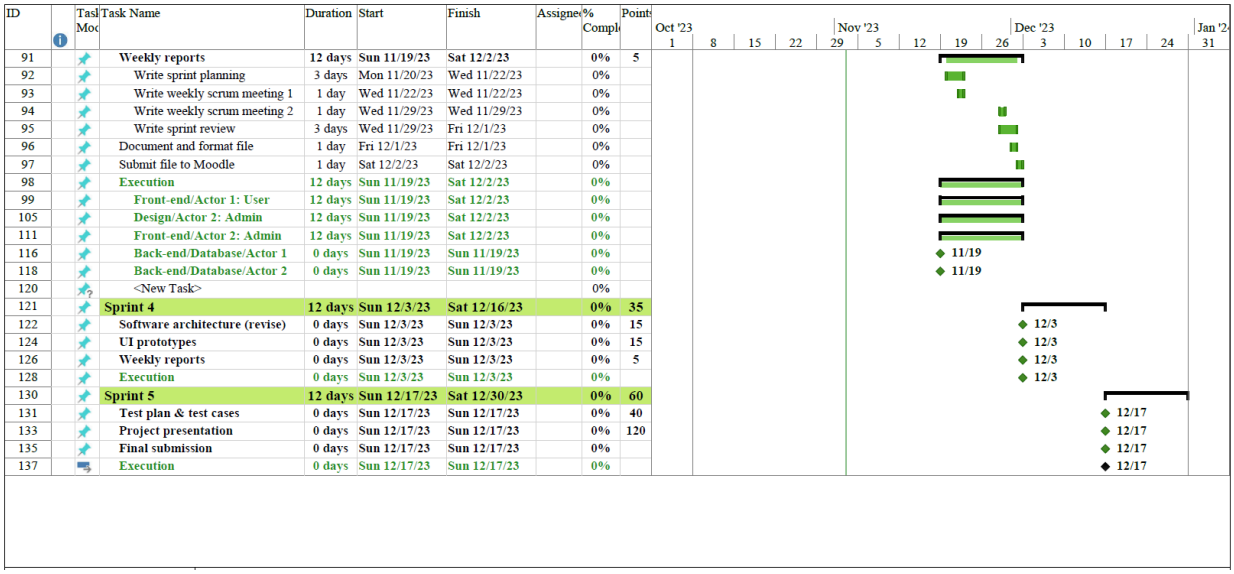


ID	Task Mode	Task Name	Duration	Start	Finish	Assignee	% Complete	Points
29		Write Sprint planning	3 days	Wed 10/25/23	Fri 10/27/23	Thịnh	100%	1
30		Write Weekly scrum meeting PA	3 days	Sun 10/22/23	Tue 10/24/23	Khánh	100%	1
31		Write Weekly scrum meeting PA	3 days	Wed 10/25/23	Fri 10/27/23	Dương	100%	1
32		Write Weekly scrum meeting PA	3 days	Wed 11/1/23	Fri 11/3/23	Khánh	100%	1
33		Write Sprint review	3 days	Wed 11/1/23	Fri 11/3/23	Khánh	100%	1
34		Format and convert document to pc	1 day	Fri 11/3/23	Fri 11/3/23	Ngọc	100%	
35		Submit file to Moodle	1 day	Sat 11/4/23	Sat 11/4/23	Ngọc	100%	
36		**Front-end/Train**	**12 days**	**Sun 10/22/23**	**Sat 11/4/23**		**85%**	
37		Learn HTML, CSS	7 days	Sun 10/22/23	Sat 10/28/23		90%	
38		Learn Responsive with grid syste	7 days	Sun 10/29/23	Sat 11/4/23		80%	
39		**Sprint 2**	**12 days**	**Sun 11/5/23**	**Sat 11/18/23**		**0%**	**70**
40		**Project plan (2nd)**	**4 days**	**Sun 11/5/23**	**Wed 11/8/23**		**0%**	**10**
41		Update and fix issues	2 days	Sun 11/5/23	Mon 11/6/23		0%	5
42		Complete other sections	2 days	Tue 11/7/23	Wed 11/8/23		0%	5
43		**Vision document (2nd)**	**5 days**	**Wed 11/8/23**	**Tue 11/14/23**		**0%**	**10**
44		Write Functional requirements	1 day				0%	2
45		Write Non-functional requireme	1 day				0%	2
46		Write Alternatives	1 day				0%	2
47		Write Competitors	1 day				0%	2
48		Write User environment	1 day				0%	2
49		**Use-case model**	**3 days**	**Fri 11/10/23**	**Tue 11/14/23**		**0%**	**10**
50		Model use-case diagram 1					0%	
51		Model use-case diagram 2					0%	
52		**Use-case specification**	**4 days**	**Mon 11/13/23**	**Thu 11/16/23**		**0%**	**35**
53		Write Use-case name					0%	5
54		Write Flow of events					0%	10
55		Write Special requirements					0%	5
56		Write Preconditions					0%	5
57		Write Postconditions					0%	5





ID	Task Mod	Task Name	Duration	Start	Finish	Assigned	% Compl	Points
58		Write Extension points					0%	5
59		**Weekly reports**	**12 days**	**Sun 11/5/23**	**Sat 11/18/23**		**0%**	**5**
60		Write sprint planning	3 days	Mon 11/6/23	Wed 11/8/23		0%	2
61		Write weekly scrum meeting 1	1 day	Wed 11/8/23	Wed 11/8/23		0%	1
62		Write weekly scrum meeting 2	1 day	Wed 11/15/23	Wed 11/15/23		0%	1
63		Write sprint review	3 days	Wed 11/15/23	Fri 11/17/23		0%	1
64		Document and format file	1 day	Fri 11/17/23	Fri 11/17/23		0%	
65		Create a readme file					0%	
66		Submit file to Moodle	1 day	Sat 11/18/23	Sat 11/18/23		0%	
67		**Execution**	**12 days**	**Sun 11/5/23**	**Sat 11/18/23**		**0%**	
68		**Design/Actor 1: User**	**4 days**	**Sun 11/5/23**	**Wed 11/8/23**		**0%**	
69		Design sitemap & userflow	1 day	Sun 11/5/23	Sun 11/5/23	Ngọc	0%	
70		Sketch responsive UI layout	1 day	Sun 11/5/23	Sun 11/5/23	Ngọc	0%	
71		Design style & components	1 day	Sun 11/5/23	Sun 11/5/23	Ngọc	0%	
72		Design responsive layout	3 days	Mon 11/6/23	Wed 11/8/23	Ngọc	0%	
73		**Front-end/Actor 1: User**	**8 days**	**Thu 11/9/23**	**Sat 11/18/23**		**0%**	
74		Code UI components					0%	
75		Code front-end desktop layou					0%	
76		**Train**	**12 days**	**Sun 11/5/23**	**Sat 11/18/23**		**0%**	
77		Learn JavaScript basic					0%	
78		Learn JavaScript advanced					0%	
79		Learn ReactJS					0%	
80		Learn Node & ExpressJS					0%	
81		**Sprint 3**	**12 days**	**Sun 11/19/23**	**Sat 12/2/23**		**0%**	**60**
82		**Use-case specification (2nd)**	**12 days**	**Sun 11/19/23**	**Sat 12/2/23**		**0%**	**5**
83		Update and complete					0%	
84		Log changes in revision history					0%	
85		**Software architecture**	**12 days**	**Sun 11/19/23**	**Sat 12/2/23**		**0%**	**20**
89		**Class diagrams**	**12 days**	**Sun 11/19/23**	**Sat 12/2/23**		**0%**	



ID	Task Mod	Task Name	Duration	Start	Finish	Assigned	% Compl	Points
91		**Weekly reports**	**12 days**	**Sun 11/19/23**	**Sat 12/2/23**		**0%**	**5**
92		Write sprint planning	3 days	Mon 11/20/23	Wed 11/22/23		0%	
93		Write weekly scrum meeting 1	1 day	Wed 11/22/23	Wed 11/22/23		0%	
94		Write weekly scrum meeting 2	1 day	Wed 11/29/23	Wed 11/29/23		0%	
95		Write sprint review	3 days	Wed 11/29/23	Fri 12/1/23		0%	
96		Document and format file	1 day	Fri 12/1/23	Fri 12/1/23		0%	
97		Submit file to Moodle	1 day	Sat 12/2/23	Sat 12/2/23		0%	
98		**Execution**	**12 days**	**Sun 11/19/23**	**Sat 12/2/23**		**0%**	
99		**Front-end/Actor 1: User**	**12 days**	**Sun 11/19/23**	**Sat 12/2/23**		**0%**	
105		**Design/Actor 2: Admin**	**12 days**	**Sun 11/19/23**	**Sat 12/2/23**		**0%**	
111		**Front-end/Actor 2: Admin**	**12 days**	**Sun 11/19/23**	**Sat 12/2/23**		**0%**	
116		**Back-end/Database/Actor 1**	**0 days**	**Sun 11/19/23**	**Sun 11/19/23**		**0%**	
118		**Back-end/Database/Actor 2**	**0 days**	**Sun 11/19/23**	**Sun 11/19/23**		**0%**	
120		<New Task>					0%	
121		**Sprint 4**	**12 days**	**Sun 12/3/23**	**Sat 12/16/23**		**0%**	**35**
122		**Software architecture (revise)**	**0 days**	**Sun 12/3/23**	**Sun 12/3/23**		**0%**	**15**
124		**UI prototypes**	**0 days**	**Sun 12/3/23**	**Sun 12/3/23**		**0%**	**15**
126		**Weekly reports**	**0 days**	**Sun 12/3/23**	**Sun 12/3/23**		**0%**	**5**
128		**Execution**	**0 days**	**Sun 12/3/23**	**Sun 12/3/23**		**0%**	
130		**Sprint 5**	**12 days**	**Sun 12/17/23**	**Sat 12/30/23**		**0%**	**60**
131		**Test plan & test cases**	**0 days**	**Sun 12/17/23**	**Sun 12/17/23**		**0%**	**40**
133		**Project presentation**	**0 days**	**Sun 12/17/23**	**Sun 12/17/23**		**0%**	**120**
135		**Final submission**	**0 days**	**Sun 12/17/23**	**Sun 12/17/23**		**0%**	
137		**Execution**	**0 days**	**Sun 12/17/23**	**Sun 12/17/23**		**0%**	

4.2.2 Iteration Objectives

Phase 1: Inception

Sprint 0:

- Establish the project team.
- Set up a communication channel: Slack.
- Set up project management platform: Jira, Microsoft Project.
- Set up version control/code management platform: GitHub.
- Draft a project proposal describing the project's introduction, proposing the product's functions, team roles, and responsibilities.

Sprint 1:

- Initialize a project plan outlining the project's scope.
- Create a vision document that communicates the high-level goals and expected outcomes of the project.
- Maintain communication, track progress, and address any issues through weekly meetings reports.

Phase 2: Elaboration

Sprint 2:

- Revise and update the project plan to reflect any changes or refinements based on TA's feedback.
- Update and complete the vision document to align with the refined project requirements.
- Develop a use case model in form of diagrams to illustrate how users interact with the system.
- Create an initial use case specification, outlining specific user interactions and system responses.

Sprint 3:

- Revise and update the use case specification to incorporate feedback and changes.
- Craft the foundational software architecture for the project.
- Develop class diagrams.

Phase 3: Construction

Sprint 4:

- Review and revise the software architecture.
- Create a user interface prototype to visualize the system.

Sprint 5:

- Develop a comprehensive test plan and test cases to ensure the quality and reliability of the system.
- Prepare a presentation and a demo video to showcase the work done and communicate the project's status.
- Compile all project documentation and deliver the submission.

4.2.3 Releases

- ***Figma prototype:*** A visual representation of the user interface and user experience design, which includes interactive elements and animations to simulate how the final product will look and behave. Generally, it is a design and usability demonstration.
- ***Demo release:*** An initial demo release created to showcase the project's core features and to collect TA's feedback and insights.
- ***Alpha release:*** An early internal release used for initial testing within the team.
- ***Beta release:*** A pre-release version made available to a select group of users or beta testers for testing and feedback.
- ***Product release:*** The official, stable version available to stakeholders.

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 approved as part of the Configuration Management process.

4.3.2 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 the 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.
    - Overall costs will be monitored against the project budget.

4.3.3 Risk Management

Risks will be identified in the Inception phase using the steps 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 most significant magnitude are listed first in the table.

Risk Ranking	Risk Description and Impact	Mitigation Strategy and/or Contingency Plan
High	Time limit	Plan and estimate the project properly, try create backup plans or prepare backup time before deadline
Medium	Team conflict	Hear out and dissolve it in front of the team so there will not be any biases and approach the conflict with multiple perspectives
Medium	Team burnt out	Make teammate guarantee to be responsible with their tasks so they will not give up on them, try make tasks with low pressure as much as possible, value and respect teammate's opinions and works
Low	Team members inexperienced	Make team members be responsible for which work they took part in so that they would approach the issue and announce it early so that the team can help to deal with it

4.3.4 Configuration Management

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

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.