OurBook+

Software Development Plan

Version <2.0>

Revision History

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| --- | --- | --- | --- |
| **Date** | **Version** | **Description** | **Author** |
| 23/Nov/22 | 2.0 | Second version of Software development plan document for PA2.  Tasks:  Kỳ: update more detailed project schedule, fix some minor grammar errors, fix weekly report sprint 2  Uyên: weekly report sprint 2 | Đinh Mỹ Kỳ  Nguyễn Minh Uyên |
| 09/Nov/22 | 1.0 | First version of Software development plan document prepared for PA1.  Tasks:  Kỳ: write section 2, 3, 4.1, 4.2.3, 4.3, edit document  Uyên: write section 4.2.1, 4.3.1  Hoàng: write section 2.1, 4.2.2  Minh: write section 1, 4.3.2 | Đinh Mỹ Kỳ  Nguyễn Minh Uyên  Phạm Việt Hoàng  Trương Nhật Minh |
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Software Development Plan

# Introduction

## 1.1 Purpose

- The Software Development Plan's goal is to collect all the information required for managing the project. It is the plan created and used by managers to guide the development effort, and it describes the methodology to develop the software.

- Users of the software development plan include the following:

+ Project manager: uses it to schedule the project, determine the resources needed, and monitor the progress.

+ Project team members: use it to comprehend what they need to do, when they need to do it, and which other activities they must rely on.

## 1.2 Scope

The OurBook+ project's overall plan is described in this software development plan.

## 1.3 Overview

This Software Development Plan contains the following information:

- Project Overview: gives an explanation of the goals, scope, and purpose of the project. Additionally, it outlines the products that the project is supposed to produce.

- Project Organization: describes the project team's organizational structure.

- Management Process: defines the project’s estimated cost, key phases, project milestones, schedules, and specifies how the project will be monitored.

*Reference:* <https://sceweb.uhcl.edu/helm/rationalunifiedprocess/webtmpl/templates/mgmnt/rup_sdpln_sp.htm>

# Project Overview

## Project Purpose, Scope, and Objectives

Reading books is essential to broaden one’s knowledge. However, as far as we know, there is not any software for book readers to read 100% free books in both electronic and traditional printed formats. Thus, OurBook+ is a non-profit “bookshelf” for bidirectional interaction to share, read, borrow books. This makes reading books easier than ever: download pdf e-books or read e-books directly on our website, book appointments to borrow printed books. Also, anyone can be a contributor to build up the free bookshelf, even the readers can share their books to other users. Besides that, OurBook+ provides many interactive features such as Q&A, chat, etc. to enhance the community of book readers.

## Assumptions and Constraints

- There will be no more people added during the project

- The project has a fixed schedule of 11 weeks, so the time and schedule to complete each task must follow the plan for the project to be finished on time.

- Zero-budget project

## Project Deliverables

- Vision document

- Software Development Plan

- User Interface Design

- Database Design

- Use case

- Sprint reports

- Source codes

- Test plan

# Project Organization

## Organizational Structure

**Team Lead**

**+**

**Project Manager:**

Đinh Mỹ Kỳ

**Implementer**

**(Front End) + Tester**

Đinh Mỹ Kỳ

Nguyễn Minh Uyên

**Implementer**

**(Back End) + Tester**

Phạm Việt Hoàng

Trương Nhật Minh

**Business Analyst:**

Nguyễn Minh Uyên

Đinh Mỹ Kỳ

**UI/UX Designer:**

Đinh Mỹ Kỳ

**Database Designer:**

Phạm Việt Hoàng

Trương Nhật Minh

## Roles and Responsibilities

|  |  |  |
| --- | --- | --- |
| **Role** | **Person** | **Responsibilities** |
| Team Lead & Project Manager | Đinh Mỹ Kỳ | - Plan the project  - Assign tasks for members  - Keep track of each member’s work to ensure that tasks are completed on time  - Ensure the development is professional and ethical.  - Ensure software requirements (System and User requirements)  - Monitor the meetings  - Write weekly reports  - Edit documents and submit the group’s work |
| Implementer (Front end) | Đinh Mỹ Kỳ  Nguyễn Minh Uyên | - Write source code for web front end  - Review source code  - Collaborate with backend developers |
| Implementer (Backend) | Phạm Việt Hoàng  Trương Nhật Minh | - Write source code for web back end  - Review source code  - Collaborate with front end developers |
| Business Analyst | Nguyễn Minh Uyên  Đinh Mỹ Kỳ | - Clarify the purpose of the product  - Document requirements  - Communicate with team members about the requirement |
| UI/UX Designer | Đinh Mỹ Kỳ | - Design the user interface for the product based on product’s features and requirements  - Create UI prototype  - Communicate with team members about how user interface corresponds with product’s features |
| Database Designer | Phạm Việt Hoàng  Trương Nhật Minh | - Design the database schema for the product based on product’s feature  - Communicate with team members about how database corresponds with product’s features |
| Tester | Đinh Mỹ Kỳ  Nguyễn Minh Uyên  Phạm Việt Hoàng  Trương Nhật Minh | - Write test plan and test cases  - Perform test on different devices: computer, mobile phone, tablet |

# Management Process

## Project Estimates

- Project’s schedule:

The project is fixed in 11 weeks.

- Project’s cost:

We estimate the cost per hour for each member to do the project is $20. Each member needs to spend approximately 5 hours per week on average to complete his or her tasks of that week. The project spans for 11 weeks. Our team consists of 4 members.

Therefore, the estimated cost for our project is 20 x 5 x 11 x 4 = $4400

## Project Plan

### Phase and Iteration Plan

Section 4.2.1 provides an overall plan according to each phase and iteration. Each phase includes starting date, ending date and overall objectives. The milestones are Start, M1, M2, M3, M4, and Finish along with some criteria.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Disciplines** | **Inception** | **Elaboration** | |  | **Construction** |  |
|  | Sprint 1  (29/10-12/11) | Sprint 2  (12/11-26/11) | | Sprint 3  (26/11-10/12) | Sprint 4  (10/12-24/12) | Sprint 5  (24/12-7/01) |
| Business Modeling | 💎 Start |  | |  |  |  |
| Requirements |  | 💎 M1 | |  |  |  |
| Analysis & Design |  |  | | 💎 M2 |  |  |
| Implementation |  |  |  |  | 💎 M3 |  |
| Test |  |  | |  |  | 💎 M4 |
| Deployment |  |  | |  |  |  |
| Configuration and Change Management |  |  | |  |  |  |
| Project Management |  |  | |  |  |  |
| Environment |  |  | |  |  |  |

Finish 💎

|  |  |
| --- | --- |
| **Milestones** | **Criteria** |
| M1: Finish business modeling and requirements and environment (there is an additional week for editing) | + Business modeling and requirements should be clearly specified.  + The environment is determined based on the group's discussion. |
| M2: Finish analysis and design, complete nearly half of the implementation, start Configuration & Change Management and half way through Project Management | + Analysis and design must fit the product’s features.  + Implementation must be done cooperatively between Front End and Back End, which means each task must be completed in both Front End and Back End before the team moves to a new task.  + Implementation starts later than analysis and design (after the sketch UI design is completed).  + Project management: continue assigning tasks and keep track of tasks done by each member. |
| M3: In the 3rd phase of implementation, start testing and recheck the environment. | Keep implementing (writing source codes), fix identified bugs and start to perform unit tests. |
| M4: In the last sprint of all disciplines, basically nearly finish, conduct tests again, prepare for deployment | + Fix all the bugs identified  + Complete the remaining feature (if there is any)  + Conduct tests again |
| Finish: Release | Expect to have 2 releases corresponds with deadline of PA5 and PA6 |

### Releases

There are 2 builds we will produce for testing. The schedule is as follows:

|  |  |  |
| --- | --- | --- |
| **Activity** | **Start date** | **End date** |
| Test case 1 + Report + Release 1 | 29/11/2022 | 12/12/2022 |
| Test case 2 + Report + Release 2 | 13/12/2022 | 7/01/2022 |

* + 1. *Project Schedule*

This section contains the detailed schedule of each task in each phase.







## Project Monitoring and Control

### Reporting

### Risk Management

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| *Risk ID* | *Risk Description* | *Probability* | *Impact* | *Priority* | *Mitigation Strategy or Contingency Plan* |
| 1 | Estimation: Time estimated for each task (the initial plan) is not enough for implementation | Seldom  (7%) | Serious  3 | 21 | If there’s still time left, we can reschedule the whole plan to prioritize more important features. |
| 2 | People: Members may have some sudden works or get sick so they cannot attend the meeting for discussion on project | Seldom  (7%) | Serious  3 | 21 | Either reschedule the meeting or record the meeting if the absent member’s role is not necessary in that meeting. |
| 3 | Technology: The new technology is used in the project when most members are not familiar, so the team members may have some difficulties implementing during the process | Occasional  (10%) | Moderate  2 | 20 | Members who already know how to use it will train those who don't know how to use it. |
| 4 | Requirements: Users may not be familiar with how to use the software | Seldom  (7%) | Moderate  2 | 14 | A thorough guide on how to use the software is provided with the finished product. |
| 5 | Technology: Some sudden changes in code cause misunderstanding | Unlikely  (3%) | Serious  3 | 9 | Discuss about each member’s code |

### Configuration Management

*-* Github: collaborate coding, upload submitted docs and project assignments.

- Google drive: store and share documents, files to write together for each sprint.

- Trello: manage, assign tasks and keep track of tasks for each sprint.

- Slack, Messenger: discuss on the project