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LOGiT Software Development Plan Version <1.4>

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**Revision History** 

Date	Version	Description	Author
04/06/2024	<1.0>	Complete section 3. Project Organization	Võ Minh Khôi
06/06/2024	<1.1>	Fill out section 4. Management Process	Lê Ngọc Thảo
07/06/2024	<1.2>	Complete section 2. Project Overview	Nguyễn Tấn Hoàng, Lê Nguyễn Minh Châu
07/06/2024	<1.3>	Complete 4.3 Project Monitoring and Control Nhâm Đức Hu	
10/06/2024	<1.4>	Overall document format	Võ Minh Khôi

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## Software Development Plan

#### 1. Introduction

This is the Software Development Plan for a mobile application project named LOGiT. This document aims to provide information on the overview of the project, the target users and environments, and the project's management process.

### 2. Project Overview

### 2.1 Project Purpose, Scope, and Objectives

The objective of this project is to develop a mobile application designed to enhance patient care and streamline healthcare management through improved communication, medication adherence, accurate diagnosis, and treatment. The app aims to alleviate the strain on hospital resources by reducing avoidable hospital stays and empowering patients to take a more active role in their healthcare journey.

#### 2.2 Assumptions and Constraints

Assumptions

- The team has all the necessary skills and expertise to complete the project with limited additional training.
- All team members will be available and committed to the project throughout its duration.
- The necessary tools and software required for the project are already available and do not require additional purchases.
- Stakeholders will provide timely feedback and approvals as required.
- The project scope will not change significantly once the project has started.

#### Constraints

- The project must be completed by early August 2024.
- The project has a zero budget.
- The project team consists of 5 individuals.
- The project must be completed within 5 sprints.
- Only existing resources (e.g., software, hardware, and tools already available to the team) can be used.
- The project scope must fit within the constraints of time, team size, and budget.
- The quality of deliverables must meet predefined standards and requirements.
- Stakeholder engagement and communication must be managed within the available time and resources.
- Risks must be mitigated without incurring additional costs or extending the project timeline.
- Only tools and technologies already accessible to the team without additional costs can be used.

#### 2.3 Project Deliverables

The project will yield the following deliverables:

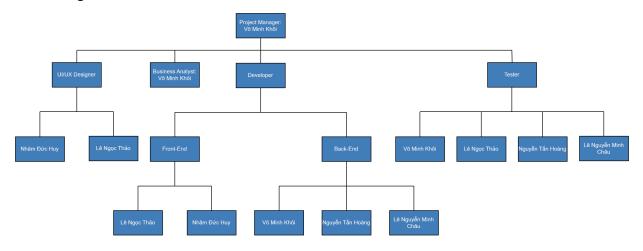
- 1. Proposal
- 2. Vision Document (expected date of delivery: 10/06/2024)
- 3. Software Development Plan (expected date of delivery: 10/06/2024)
- 4. Use Cases Specification (expected date of delivery: 7/Jul/23)
- 5. Use Case Model (expected date of delivery: 7/Jul/23)
- 6. Software Architecture Document (expected date of delivery: 7/Jul/23)
- 7. User Interface Prototype (expected date of delivery: 7/Jul/23)
- 8. Database Design (expected date of delivery: 7/Jul/23)
- 9. Test Plan (expected date of delivery: 25/Jul/23)
- 10. Test Cases (expected date of delivery: 25/Jul/23)

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- 11. Test Report (expected date of delivery: 29/Jul/23)
- 12. Project Presentation (expected date of delivery: 9/Aug/23)

### 3. Project Organization

### 3.1 Organizational Structure



### 3.2 Roles and Responsibilities

Person	Role
Võ Minh Khôi, Project Manager, Business Analyst, Backend Developer, Tester	Project planning, risk management, and overall project coordination. Analyze business requirements, translate them into technical specifications, and ensure alignment with project goals. Develop and test software components, ensuring functionality, reliability, and adherence to quality standards.
Lê Ngọc Thảo, UI/UX Designer, Developer, Tester	Leads the design and development of the application's user interface and user experience, ensuring an intuitive and visually appealing front end. Implements and tests core features, guaranteeing a seamless user experience. Contributes to project management and supervision, ensuring timely progress and adherence to quality standards.
Nhâm Đức Huy, UI/UX Designer, Frontend Developer, Tester	Supports the design and development of the application's user interface, ensuring visual consistency and usability.
Nguyễn Tấn Hoàng, Backend Developer, Tester	Responsible for debugging and refining the codebase of the application, ensuring optimal performance and stability. Identifies and resolves code errors, improves code efficiency, and maintains code quality. Collaborates with other

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	developers to ensure a cohesive and well-structured codebase.
Lê Nguyễn Minh Châu, Backend Developer, Tester	Primarily responsible for the backend development, ensuring robust functionality and data management. Implements and tests server-side logic, database interactions, and API endpoints. Collaborates with frontend developers to integrate the backend seamlessly.

### 4. Management Process

#### 4.1 Project Estimates

Cost Estimates: 0\$

#### **Schedule Estimates:**

- 1. Inception Phase (2 weeks)
- Gather requirements
- Define project scope and objectives
- Establish the development team
- Set up necessary tools and infrastructure
- 2. Elaboration Phase (4 weeks)
- UI/UX design and prototyping
- Front-end development using Flutter
- Back-end development using Dart and Firebase
- Integration and testing
- 3. Construction Phase (4 weeks)
- Iterative development and testing
- Refine and enhance application features
- Ensure overall system quality
- 4. Transition Phase (2 weeks)
- Conduct user testing and gather feedback
- Implement necessary changes
- Finalize the application

#### **Re-estimation:**

The project team will re-estimate the cost and schedule at the following points during the project:

- After the Inception Phase, to ensure the initial estimates are accurate and to incorporate any changes in requirements or scope.
- Midway through the Elaboration Phase, assess progress, identify any potential risks or delays, and adjust the schedule and budget accordingly.
- After the Construction Phase, incorporate any necessary changes based on ongoing testing and finalize the cost and schedule for the Transition Phase.

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### 4.2 Project Plan

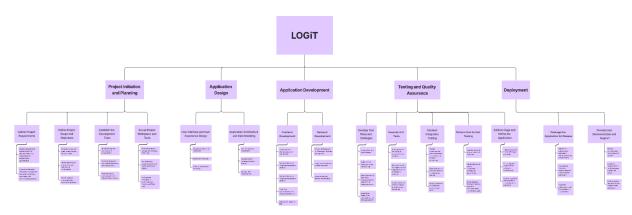
### 4.2.1 Phase and Iteration Plan

Phase name	Start date	End date	Overall Objective
Inception (Sprint 1)	13/05/2024	27/05/2024	Project scope, cost estimate and risk plan for LOGiT Workspace and communication tools for group member Programming language, frameworks, and services for the application
Elaboration (Sprint 2, 3)	27/05/2024	24/06/2024	Detailed application structure and workflow documentation Database relational model for physician, patient, and admin. Functional user interface prototypes Implemented core features with integration and testing
Construction (Sprint 4,5)	24/06/2024	29/07/2024	Fully functional LOGiT mobile application Populated database with dummy data Optimized user interface and user experience Comprehensive test suite and quality assurance report Application ready for deployment
Transition (Sprint 6)	29/07/2024	05/08/2024	Updated application with necessary changes User documentation and support materials Finalized deployment and launch plan

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Sprint	Start date	End date	Stage
Sprint 1	13/05/2024	27/05/2024	Planning Stage
Sprint 2	27/05/2024	10/06/2024	Design Stage
Sprint 3	10/06/2024	24/06/2024	Design -> Develop Stage
Sprint 4	24/06/2024	08/07/2024	Develop Stage
Sprint 5	08/07/2024	22/07/2024	Develop -> Testing Stage
Sprint 6	22/07/2024	05/08/2024	Delivery Stage

## Work Breakdown Structure (WBS): Link for more details



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### 4.2.2 Releases

No.	Туре	Description	Date
1	Prototype (Figma design)	This release will provide a high-fidelity visual prototype of the LOGiT application, designed in Figma. The prototype will showcase the user interface, user experience, and the overall look and feel of the application.	17/06/2024
2	Demo (first version)	This is the first functional version of the LOGiT application, which includes the basics of all the planned features. The demo version will allow users to:  - Create an account - Utilize the "Forgot Password" functionality - Access patient and physician profiles and categorize them based on various criteria - Perform basic connection for patient and physician information - Access static, pre-configured healthcare data - Experience the basic symptom reporting functionality	08/07/2024
3	Beta (version 1.0)	This is the first major beta release of the LOGiT application, which enhances the features from the demo version with dynamic data and the initial version of the patient monitoring functionality. Key features include:  - Full user authentication Expanded patient and physician categorization - Improved patient and physician functionality - Ability to retrieve data from the database and APIs - Robust patient monitoring features, including medication adherence tracking, and symptom reporting,	15/07/2024
4	Beta (version 1.1)	This is a subsequent beta release that finalizes the core functionalities of the LOGiT application. It includes:  - Bug fixes and testing for all core features - Implementation of unit tests for the various components - Completion and refinement of user account management, patient and physician profile management, data management, and advanced patient monitoring features.	29/07/2024

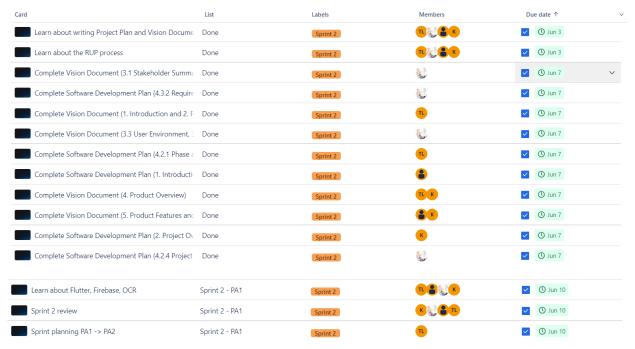
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#### 4.2.3 Project Schedule

#### **Sprint 1:**



### **Sprint 2:**



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### **Sprint 3:**

Card	List	Labels ₹	Members	Due date ↑	~
Weekly report - week 1	Sprint 3 - PA2	Sprint 3		■ Jun 17	
Draw Database Diagram	Sprint 3 - PA2	Sprint 3		① Jun 21	
Draw Class Diagram	Sprint 3 - PA2	Sprint 3		■ Jun 21	
Revised project plan	Sprint 3 - PA2	Sprint 3		① Jun 21	
Sprint review	Sprint 3 - PA2	Sprint 3		☐ <b>③</b> Jun 21	
Sprint planning PA2 -> PA3	Sprint 3 - PA2	Sprint 3		■ Jun 21	
Use-case model	Sprint 3 - PA2	Sprint 3		☐ <b>(</b> ) Jun 21	
Use-case specification	Sprint 3 - PA2	Sprint 3		☐ <b>(</b> ) Jun 21	
Detailed vision document	Sprint 3 - PA2	Sprint 3		☐ <b>③</b> Jun 21	
Weekly report - week 2	Sprint 3 - PA2	Sprint 3		① Jun 24	
Training back-end	Sprint 3 - PA2	Sprint 3		③ Jul 8	
Training front-end	Sprint 3 - PA2	Sprint 3	·	☐ <b>③</b> Jul 8	
Design UI/UX	Sprint 3 - PA2	Sprint 3	·	☐ <b>③</b> Jul 8	

### **Sprint 4:**

Card	List	Labels ₹	Members	Due date	~
Define the software architecture for the project	Sprint 4 - PA3	Sprint 4		☐	
Weekly report - week 2	Sprint 4 - PA3	Sprint 4		☐ <b>(</b> ) Jul 29	
Sprint planning PA3 -> PA4	Sprint 4 - PA3	Sprint 4		■ Jul 26	
Implement Administrator's features	Sprint 4 - PA3	Sprint 4		☐ <b>(</b> ) Jul 29	
Sprint review	Sprint 4 - PA3	Sprint 4		☐	
Weekly report - week 1	Sprint 4 - PA3	Sprint 4		☐	
Implement Main General Features	Sprint 4 - PA3	Sprint 4		☐ <b>(</b> ) Jul 29	
Implement Physician's exclusive features	Sprint 4 - PA3	Sprint 4		☐ <b>(</b> ) Jul 29	
Implement Patient's exclusive features	Sprint 4 - PA3	Sprint 4		☐ <b>(</b> ) Jul 29	
Prepare dummy data	Sprint 4 - PA3	Sprint 4		☐ <b>③</b> Jun 24	
Update the use-case specification document	Sprint 4 - PA3	Sprint 4		☐ <b>③</b> Jul 26	

### **Sprint 5:**

Card	List	Labels ₹	Members	Due date	~
Revise the Software Architecture Document (SAD)	Sprint 5 - PA4	Sprint 5	•	☐ <b>③</b> Aug 9	
Testing and Report	Sprint 5 - PA4	Sprint 5	•		
Weekly report - week 2	Sprint 5 - PA4	Sprint 5	•		
Sprint review	Sprint 5 - PA4	Sprint 5	•	Aug 9	
Weekly report - week 1	Sprint 5 - PA4	Sprint 5	•	Aug 5	
Sprint planning PA4 -> PA5	Sprint 5 - PA4	Sprint 5			
Wrap up implementation	Sprint 5 - PA4	Sprint 5	•	☐ <b>(</b> ) Aug 12	
Test Plan	Sprint 5 - PA4	Sprint 5		Aug 5	

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### **Sprint 6:**

Card	List	Labels ₹	Members	Due date	~
Update and Final Test	Sprint 6 - PA5	Sprint 6	•	☐ <b>③</b> Aug 19	
Weekly report - week 1	Sprint 6 - PA5	Sprint 6	•	☐ <b>③</b> Aug 19	
Sprint review	Sprint 6 - PA5	Sprint 6	•	☐ <b>③</b> Aug 23	
Prepare presentation	Sprint 6 - PA5	Sprint 6	•	☐ <b>③</b> Aug 26	
Weekly report - week 2	Sprint 6 - PA5	Sprint 6		☐ <b>③</b> Aug 26	

### 4.3 Project Monitoring and Control

### 4.3.1 Reporting

- Weekly Scrum Meetings
- Sprint Planning Meetings
- Sprint Review Meetings
- Progress tracking on Trello

### 4.3.2 Risk Management

### 4.3.3 Configuration Management

- **Document Collaboration & Storage**: Leverage *Google Drive* to centrally store submissions, project documents, and reports from weekly Scrum meetings (planning, review, and daily).
- **Version Control & Collaboration**: Manage source code and project documentation collaboratively through *GitHub*.