Gogle

Software Development Plan

Version 1.0

Revision History

| **Date** | **Version** | **Description** | **Author** |
| --- | --- | --- | --- |
| 08/6/2024 | 1.0 | Report the project planning | Mẫn, Duy, Kiệt, Anh |
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# Table of Contents

[**1. Introduction 4**](#_30j0zll)

[**2. Project Overview 4**](#)

[*2.1 Project Purpose, Scope, and Objectives 4*](#_3znysh7)

[*2.2 Assumptions and Constraints 4*](#_2et92p0)

[*2.3 Project Deliverables 4*](#_tyjcwt)

[**3. Project Organization 5**](#_3dy6vkm)

[*3.1 Organizational Structure 5*](#_1t3h5sf)

[*3.2 Roles and Responsibilities 5*](#_4d34og8)

[**4. Management Process 6**](#_2s8eyo1)

[*4.1 Project Estimates 6*](#_17dp8vu)

[*4.2 Project Plan 6*](#_3rdcrjn)

[4.2.1 Phase and Iteration Plan 6](#_26in1rg)

[Work Breakdown Structure (WBS) 7](#_7f8my3as85qm)

[Major Milestones 7](#_4flhspehkyyx)

[Release Points and Demos 7](#_3mxbobogsymj)

[4.2.2 Releases 8](#_lnxbz9)

[4.2.3 Project Schedule 8](#_35nkun2)

[4.3 Project Monitoring and Control 9](#_25ubnf4ibal6)

[4.3.1 Reporting 9](#_44sinio)

[4.3.2 Risk Management 10](#_z337ya)

[4.3.3 Configuration Management 10](#_1y810tw)

Software Development Plan

# 

# Introduction

This Software Development Plan outlines the roadmap for the Gogle software project, detailing three key sections: the Project Overview, Project Organization, and Project Plan.

# Project Overview

## Project Purpose, Scope, and Objectives

Gogle aims to provide a web platform that helps users create trip plans easily, offering personalized recommendations for destinations, accommodations, activities, and dining options. The objectives are to develop a user-friendly interface, implement a recommendation system for personalized travel suggestions, provide accurate travel information, enable trips management, and create a community through user reviews and ratings.

## Assumptions and Constraints

* Project has to finish in 12 weeks.
* The development team is fixed with 5 people, there will not be any more or less during the project.
* The final application only supports English.
* The team catches up at least 3 times a week to review the project progress.
* Submit the Project Assignment to lecturers
* Complete weekly report for revision
* The project does not require any additional cost.
* Only one graphic designer for designing required screens
* User feedback is limited to our own team members, and some friends.
* Scalable design to support future growth plans

## Project Deliverables

* User Interface Design - Wireframes and mockups of the website interface. (Target Delivery Date: Week 2)
* Backend Architecture - Design and development of the backend system, including database setup. (Target Delivery Date: Week 2)
* Recommendation System - Development and integration of the recommendation algorithms. (Target Delivery Date: Week 8)
* Front-end Development - Implementation of the user interface and integration with the backend. (Target Delivery Date: Week 9)
* Back-end Development – Design and development of the backend system, including database setup, API development, and integration with the frontend. (Target Delivery Date: Week 9)
* Testing Plan - A comprehensive testing plan, including unit tests, integration tests, and user acceptance tests. (Target Delivery Date: Week 10)
* Beta Version Release - Initial release for beta testing with selected users. (Target Delivery Date: Week 10)
* User Feedback Analysis - Collection and analysis of beta user feedback. (Target Delivery Date: Week 11)
* Final Version Release - Final release of the platform incorporating feedback from beta testing. (Target Delivery Date: Week 12)

# Project Organization

## Organizational Structure



## Roles and Responsibilities

| Person | Responsibilities |
| --- | --- |
| Huỳnh Cao Tuấn Kiệt | Role: Team leader, Backend developer.   * API development * Implement the recommendation system * Manage the project progress |
| Lê Duy Anh | Role: Backend developer   * API development * Performance Optimization |
| Võ Nguyễn Phương Quỳnh | Role: UI/UX designer   * Design UI/UX * Support Frontend development |
| Lý Đình Minh Mẫn | Role: Frontend developer   * Implementation of the user interface. * Integrate with the server side |
| Cao Hữu Khương Duy | Role: Data engineering   * Collecting data * Setup database * Implementation search engine |

# Management Process

## Project Estimates

## Project Plan

### Phase and Iteration Plan

Our project has three phases: Inception, Elaboration, and Construction.

**Phase 1: Inception**

**Objective:** Establish project scope, requirements, and initial design.

* **Iteration 1: Requirements Gathering and Analysis**
  + **Start Date:** May 15, 2024
  + **End Date:** May 28, 2024
  + **Objectives:**
    - Identify project stakeholders.
    - Gather and document requirements.
    - Define project scope.
    - Create high-level use cases.
    - Develop initial project plan and schedule.
    - **Milestone**: Approval of requirements and project scope.

#### **Phase 2: Elaboration**

**Objective:** Detailed system design, architecture, and initial development.

* **Iteration 2: System Architecture and Design**
  + **Start Date:** May 29, 2024
  + **End Date:** June 18, 2024
  + **Objectives:**
    - Develop system architecture.
    - Create detailed design documents.
    - Define database schema.
    - Create wireframes and prototypes.
    - Conduct feasibility analysis for recommendation system.
    - **Milestone**: Approval of system design and architecture.

#### **Phase 3: Construction**

**Objective:** Full system development, testing, and deployment.

* **Iteration 3: Initial Development and Integration**
  + **Start Date:** June 19, 2024
  + **End Date:** July 16, 2024
  + **Objectives:**
    - Set up a development environment.
    - Develop core functionalities (user authentication, basic trip planning).
    - Integrate AI module for place recommendations.
    - Develop and test API endpoints.
    - Conduct initial testing and debugging.
    - **Milestone**: Completion of initial development.
* **Iteration 4: Full Development, Testing, and Final Adjustments**
  + **Start Date:** July 17, 2024
  + **End Date:** August 5, 2024
  + **Objectives:**
    - Complete development of all core features (user interface, advanced trip planning, recommendation system).
    - Perform unit testing, integration testing, and system testing.
    - Conduct user acceptance testing (UAT).
    - Fix bugs and optimize performance.
    - Prepare documentation and user guides.
    - Prepare deployment environment.
    - **Milestone**: Final release and project completion.

### **Work Breakdown Structure (WBS)**

1. **Project Initialization**
   * Stakeholder Identification
   * Requirements Gathering
   * Scope Definition
   * Project Plan Development
2. **System Design**
   * System Architecture Development
   * Detailed Design Documentation
   * Database Schema Design
   * Wireframe and Prototype Creation
3. **Initial Development**
   * Development Environment Setup
   * Core Functionality Development
   * API Development
   * Initial Testing and Debugging
4. **Full Development and Testing**
   * Feature Completion
   * Unit Testing
   * Integration Testing
   * System Testing
   * User Acceptance Testing (UAT)
   * Bug Fixing and Performance Optimization
   * Documentation and User Guide Preparation
   * Deployment Preparation

### **Major Milestones**

1. **Requirements and Scope Approval** (May 28, 2024)
2. **System Design Approval** (June 18, 2024)
3. **Initial Development Completion** (July 16, 2024)
4. **Final Release and Project Completion** (August 5, 2024)

### **Release Points and Demos**

* **Initial Prototype Demo:** End of Iteration 2 (June 18, 2024)
* **Beta Release:** End of Iteration 3 (July 16, 2024)
* **Final Release and Presentation:** End of Iteration 4 (August 5, 2024)

### Releases

Version 1.0: Demo release

* Description: The purpose of this demo is to demonstrate the initial progress, an overview of the user interface and gather feedback from stakeholders.
* Release date: June 18, 2024

Version 2.0: Beta release:

* Description: This release will feature a fully functional user interface, user login, registration, core backend services and the initial version of recommendation system.
* Release date: July 16, 2024

Version 3.0: Final release

* Description: The final release will include all planned features, enhanced version of recommendation system, complete scheduled management and community features like user review and ratings. This version will be fully tested and ready for release.
* Target Date: August 5, 2024.

### Project Schedule

### 

## 

## Project Monitoring and Control

### Reporting

**Weekly meeting**

We have about 3 meetings a week for report the task progress

* Week 1:
  + Date: 16/5
    - Method: offline
    - Content: Discuss work processes and select a team leader.
* Week 2:
  + Date: 20/5
    - Method: offline
    - Content: Brainstorm the project idea, discussing the core features.
* Week 3:
  + Date: 27/5
    - Method: offline
    - Content: Set up project repository, database, choose the tech stack.
  + Date: 30/5
    - Method: offline
    - Content: Divide the project’s roles, assign the work to team members.
  + Date: 31/5
    - Method: online
    - Content: Discuss the recommendation system, review the tasks.
* Week 4
  + Date: 2/6
    - Method: online
    - Content: Assign people to do PA01.
  + Date: 4/6
    - Method: offline
    - Content: Review work progress.
  + Date: 7/6
    - Method: online
    - Content: Provide feedback on the authentication flow, deploy the Alpha version.

**Weekly status report**

|  | Week 1 | Week 2 | Week 3 | Week 4 |
| --- | --- | --- | --- | --- |
| Progress | Research the tools which support our work processes. | Generated a list of potential project ideas and discussed key features. | Initialized the project tools, assigned member’s roles. | Begin development and provide feedback on member’s tasks. |
| Issues/Risks | None at this state. | None at this stage. | Learning curve with new tech stack. | Minor issues identified with authentication flow. |
| Next Steps | Standardize work tools and start brainstorming ideas. | Finalize the project idea and start initial planning. | Begin development, continue tasks. | Resolve the authentication problem, continue development. |

### Risk Management

*[Identify risks in your project. The risks should be prioritized, and shorted according to their priority.]*

| *Risk ID* | *Risk Description* | *Probability* | *Impact* | *Priority* | *Mitigation Strategy or Contingency Plan* |
| --- | --- | --- | --- | --- | --- |
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### Configuration Management

* **Document Storage and Sharing:** Use Google Drive, Google Docs to store and share all project documents and files. Ensure these files are well-organized and access-controlled.
* **Process Management:** Utilize Trello to manage project workflows and tasks. Integrate Trello with Slack for real-time updates and notifications.
* **Source Code Management:** Store and manage source code on GitHub. Implement best practices for branching, code reviews, and CI/CD.
* **Communication:** Use Slack as the central hub for team communication. Integrate with other tools to centralize updates and notifications.