MONASH College

MCD4290 Engineering Mobile Apps - Trimester 1, 2018

Team Assignment 2

WALKING NAVIGATION APP

Project Management Plan

Team 053 - Semicolon

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1. Project Information

Introduction

This is the Project Management Plan (PMP) for project Walking Navigation App, sponsored by GetOverHere.

This project is being undertaken by the Team Semicolon development team. The team is comprised of undergraduate students majoring in MCD4290 Engineering Mobile Apps at Monash College.

GetOverHere is an organization specialising in directing vision impaired people. Ian Scorp - one of their executives - has recently come up with an idea about replacing employed aides with an app that can be run from user's phone. This idea resulted in the development of new walking navigation application, which would help with determining the possibility of any further applications. We understand that the development of this application would play a meaningful role in improving disabled people's lives.

Project Sponsor

Organization: GetOverHere

Primary contact: Ian Scorp, GetOverHere Organization

Project Scope

This document is going to give all the information necessary to get started with the project, including

Team members and their responsibility

The schedules of the development process

Methods and tools which will be used throughout the development.

Other procedures and methods that are involved.

Project Summary

The goal of the project is to give a basic idea about an application that can direct users to a destination via a series of walking directions. To achieve the goal, our team is going to contact and work in coordination with the sponsor organization to establish the project overall requirements and progress. Additionally, this application will focus on vision impaired users.

Project Scope and Requirements

The scope of this application includes the planning, development, testing and delivering. That also includes the completion of all documentation and user guide.

After working in coordination with the sponsor organization to discuss the project's direction and progress. A list of functionality requirements and timelines has been delivered.

Functionality requirements

This is a brief version of functionality requirements; detailed information will be given in other documents of this project.

Functionality	Description
Loading and displaying paths details	Getting the routes information from external websites and displaying all the routes as a list in the main interface.
Showing the map with user's location	Displaying a map pointing to user's location. GPS accuracy and user's moving heading must also be indicated.
Direct user to the next waypoint	Determining the next waypoint in the path, showing the direction to the next waypoint.
Location history	Showing a polyline forming the user's location history.
Extra information	Showing extra information involved, including distance to the destination, user's speed, estimated time of arrival.

Table 1. Functionality requirements

Milestone List

This schedule contains a list of phases, deliverables, which is essential for the team to maintain a reasonable progress and deliver the project in time.

Milestone	Description	Estimated date
Gathering requirement	Working with the sponsor to establish the vision and scope of the project.	April 20, 2018
Planning phase	Develop and document the management plan.	April 24, 2018
Requirement analysis and Design	Investigate the requirements and design the app interface.	April 26, 2018
Development	Implement the application based on the design and requirements.	May 5, 2018
Application testing	Perform testing on functionalities and interfaces	May 7, 2018
Documentation	Develop User's Guide	May 9, 2018

Table 2. Milestone List

2. Personnel Management Plan

The team Semicolon is comprised of undergraduate students majoring in MCD4290 Engineering Mobile Apps at Monash College.

Full Name	**Phone Number**	**Email**
Dinh Khai Nguyen	0451 360 125	dngu0028@student.monash.edu
Promit Saha	0405 146 189	psah0004@student.monash.edu
Renakng Huo	0404 352 326	rhuo0001@student.monash.edu
Utkarsh Patel	0411 521 007	upat0003@student.monash.edu

Table 3. Team members contact details

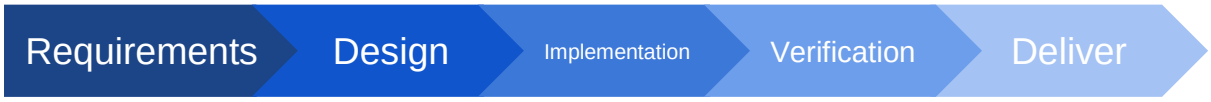
Full Name	**Role**	**Responsibilities**
Dinh Khai Nguyen	*Team Leader*	Assign duties to members Run regular meetings Ensure the project is finished on time
	Quality Assurance	Manage the quality of the project Ensure the app is tested carefully
Promit Saha	*Secretary*	Keep track of team meeting agendas
	Team member	Develop the given coding tasks Contribute to the documentation
Renakng Huo	*Team member*	Develop the given coding tasks Contribute to the documentation
Utkarsh Patel	*Team member*	Develop the given coding tasks Contribute to the documentation

Table 4. Team members role and responsibilities

3. Decision on Processes

Project Model

This project will make the use of Waterfall model. Begin with gathering requirements, the team will turn to Design, Implementation, Verification respectively. Each of these stages must be completed before moving to the next one. This is an appropriate approach because the requirements from the sponsor are very clear, which can be analyzed, designed and implemented.



Programming Languages and API

In this web-based project, our team will utilize various programming and markup languages:

- HTML, CSS: Construct the front-end interface and structure of the application.
- JavaScript: Programming for the actual logic parts of the application.
- API: Material Design Lite, Google Maps API v3

Tools and Technique

- **Debugging**
  Google Chrome Developer Tools
  By utilizing Developer Tools, we can look for bugs in the application, as well as test whether the application executes as expected.

- **Communications**
  Asana (to be described more in Communications Management)

- **Version Control**
  GitKraken will be used for version control. GitKraken allows identifying specific versions of files, restoring any previous version of a file as well as working concurrently among people. We also choose GitKraken for version control because of its friendly user interface.

- **Shared storage and documentation**

  Google Drive will be used to store project documentation, as well as involved documents (meeting agendas, brainstorming ideas sheet, etc.) Besides, Google Docs is also utilized to manage documents as it supports version history.

- **Pair programming**

This is a useful technique where each pair of the team member can review the other’s code in order to detect an error. Particularly, Dinh Khai Nguyen and Renakng Huo form a pair, while Promit Saha and Utkarsh Patel form a pair.

4. Communications Management Plan

The Communications Management sets the communications framework for this project. This plan identifies the forms of team communications, as well as roles of team members in team communications.

Team Meetings

The team meets twice a week during the period of the project.

- Tuesday 12:00 pm - 1:30 pm
- Wednesday 3:30 pm - 5:00 pm

During the meetings, Team Leader will come to review team's progress, distribute tasks and aid for others if they have any difficulties in their allocated tasks.

The main intention of these meetings is that group members can easily sort out their doubts regarding their allocated tasks and move on to complete it.

At the end of one meeting, the Secretary will take all notes for the content and the update on the progress of that meeting.

Asana

Asana is a tool made for team communications. We used Asana mainly for task tracking (with the ability to create tasks, subtasks, assign to a specific person, set due date, track progression). Asana is also used for team conversations.

Informal Communications

Informal communications are an essential part of every project. Team members will communicate whenever they have issues, concerns, updates or just want to remind the others.

Facebook Messenger

Our team made the use of Facebook Messenger to communicate because of its popularity and convenience. This platform is usually used to inform about updates on progress and meeting reminder.

Verbal communications

Apart from Facebook Messenger, verbal communications are the most used method of communication.

5. Schedule Management Plan

There are many factors changing throughout the development of the application. Therefore the initial schedule is just an estimation of the progression. The whole team will work together to evaluate and estimate the time to finish each phase. The team leader will set the due date for these tasks based on team's estimation.

6. Quality Management Plan

As a Quality Assurance, Dinh Khai Nguyen is responsible for:

- Provide formats, tutorials to ensure the quality for every member in the team
- Review and manage the quality of deliverables (including the application and documentation)
- Remind team members to always follow the quality standards.

This will ensure that the project meets the quality standards.

7. Risk Management Plan

The goal of Risk Management Plan is to identify potential obstacles and how to mitigate them.

1. **Missed deadlines**: All the team members may face some probabilities that could affect their ability to complete their tasks in time.
   Probability: High
   Prevention: Never leave works until the deadlines. Each member should also manage their own schedule.

2. **Mismanagement**: As a student, the team leader may make mistake in managing the team to reach the goal.
   Probability: Medium
   Prevention: Try to get constructive feedback from team members

3. **Lack of Experience**: All the team members may have some difficulties in working with new concepts, such as Material Design Lite, API, CSS, etc
   Probability: High
   Prevention: Each team member should try to expand their knowledge in relevant topics.

4. **Incompatible system**: The app can be run on a platform that is not tested yet, this may lead to some error.
   Probability: Medium
   Prevention: Try to test the app on multiple platforms (including devices, operating systems, web browsers, etc)

5. **Team member unavailability**: It is possible that some members may miss some meetings
   Probability: Low
   Prevention: Get a schedule prior to the meeting, hence the team members can arrange their own time.

6. **Implementation collision**: Some members' implementation may collide with others'.
   Probability: Medium
   Prevention: Make use of GitKraken, always come to a concurrence of opinion before implementing.