Software Development Plan: Revision 0

Group 2 - Genzter

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Contents

1 Revision History

Date	Version	Description	Author
29/SEP/17	0.0	Created development plan	Mohamed Bengezi

Table 1: Revision History

2 Introduction

2.1 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 the Software Development 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 are dependent upon.

3 Team Meeting Plan

3.1 Details of Meetings

Meetings will occur 3 times a week. Two of these meetings will take place during the lab section. The third meeting will take place on Wednesday's, at Thode library, after classes. During each meeting, members will rotate filling the position of Meeting Chair. the Meeting Chair will be in charge of writing the agenda for that meeting, which is discussed below.

3.2 Meeting Agendas

As stated above, agendas will be completed by the meeting chair. Meeting agendas will be included in the Meeting Minutes, which will be completed during meeting. This is the Meeting Minutes Template we will be using. We will also include a summary of decisions made during the meeting, as well as who needs to do what next. The meetings will follow Harvard guidelines, which were discussed in class.

4 Team Communication Plan

The team will primarily use a Facebook group chat to communicate, but will also exchange emails as well as phone numbers. The group chat will be used if any issues come up outside of meetings, or if any group member needs assistance with something non-urgent. For meetings, the Meeting Chair will use both the chat and cell numbers in order to ensure everyone is on the same page. Emails will be used to send/receive data regarding the project.

5   Team Member Roles

Team member roles will vary, but the following table can provide a general description of each member's current roles. DECIDE WHO DOES WHAT

Person	Role
Mohamed Bengezi	- Documentation Lead - Designer - Developer - Test Cases
Amit Binu	- Development Lead - Designer - Documentation assistance - Test Cases
Sachin Samarasinghe	- Information Lead - Developer - Code Review - Test Cases

Table 2: Team Member Roles

6 Git Workflow Plan

ASK TA ABOUT

7 Proof of Concept

7.1 Technical Feasibility

This project is a feasible undertaking, because the idea in itself is a simple one. Although there will be a slight learning curve with respect to some of the technology involved, the implementation of the project is viable. All group members are technically equipped in regards to a majority of the technologies required. As for required hardware, there are many school resources available in addition to our own computers and laptops, all of which are well equipped to run the required software.

7.2 Identification of Risks

In general, the implementation will mostly include incorporating user input with information retrieval from the JSON file that contains the course data. One part of the implementation that poses the biggest challenge is generating timetables that contain no conflicts, in an efficient manner. This is a challenge because it will be difficult to keep track of each time slot that is taken. With normal timetable generators, the user manually fills in the schedule, but with this one, the schedules will be generated automatically.

Testing will not be difficult. We will manually create a set of schedules that do not contain any conflicts, and use them as a benchmark against the generated set of schedules. This will be done repeatedly, with different courses selected for each set of tests.

As for required libraries and technologies, installation will not be difficult at all, seeing as all are free and work with the software environment that we have setup. Portability will not be a concern, seeing as the project will be hosted on the web, and so any user with access to internet will not have any issues using the project.

7.3　Demonstration Plan

For the demonstration plan, we will develop an algorithm that takes in two courses, and generates a set of viable (no conflicts) timetables. This will infer the viability of developing a similar algorithm for 5 or 6 courses.

8　Technology

The programming languages used will be HTML, JavaScript, and CSS. More specifically, we will be using Node.js primarily for the back-end of the project. As for the IDE, we will be working with JetBrains WebStorm, which is specifically designed for Node.js projects. The testing framework used will be Mocha. Mocha is "a feature-rich JavaScript test framework running on Node.js and in the browser, making asynchronous testing simple and fun" [1]. In regards to documentation, all documentation will be written and compiled in LaTeX, and the resulting PDF will be used.

9　Coding Style

This project will be using the Mozilla coding style.

10　Project Schedule

The project schedule will be included in the GanttProject file. It will be regularly updated, and include all milestones.

References

[1] Mocha Framework. *Mocha JS Homepage* https://mochajs.org/