

Feasibility Study

Project Summary:

Title: Student Workload Assistance Application

This project aims to help students better manage deadlines and important academic dates. We want to provide these in an accessible format that can provide updates to students while allowing them to manage their progress on individual courses.

The idea is that students will be able to indicate which papers they are taking for a semester, our application will then pull from a database the relevant dates for this paper and produce a calendar-like interface with these dates. Users will be able to submit working hours for assignments to keep track of how long they are spending on the assignment. If they aren't submitting enough working hours before the due date, our application will send the user notifications or reminders.

Technical Considerations

In terms of technical considerations, we feel confident that between our team members, we share the skills to complete our project. The scope of the project is constrained to mitigate potential technical issues that could arise. Some of the technical aspects we have considered going into the project include the backend and database required which we plan to use MySQL and Java, the calendar interface which we will use an imported calendar widget, the notifications and/or email reminders and the front-end design which we will use Javascript and HTML/CSS with a Vue framework. These aspects cover a range of skill sets and could potentially present some issues. However, we have all had experience with each of these necessary skills and believe we are capable of achieving these aspects within the context of our intended project.

Operational Considerations

Operational factors throughout this project include organising meeting times, regular team check-ins and maintaining consistent and effective communication. Our scheduled weekly lab sessions provide a great space for regular check-ins, ensuring we are at least meeting in person weekly to share updates about the project. Once we get underway, we are likely to require further meeting times which we can organise closer to the time. Within the confines of the University, we have access to plenty of meeting spaces, libraries, study spaces etc. where we can meet. We also have a Snapchat group chat, allowing for consistent communication. One of the team members doesn't have access to this group chat so we have appointed a team member responsible for ensuring he is up to date with any important discussions from this space.

In terms of the project being accepted and utilised by the end users. We see no reason why this project would be rejected by the targeted end users. Assuming the software is developed to a high standard and given our team can provide a secure and usable environment for users, then the project should be accepted by the client's current environment. Similarly, the benefits our project will provide are incentives for utilisation by our end users and at this stage of research and development, we don't foresee any reason for rejection.

Schedule Considerations

It is important during the development of our project that we consider the schedule considerations. This primarily involves managing the scope of the project to determine what can be developed in the time available. We will manage this through various mechanisms. The project has been broken into three milestones with the work distributed into each to ensure we keep track of the work we are doing in two-week sprints. This will help us to make sure we are completing our work on schedule and are not getting ahead of ourselves. We will also use Trello to manage our sprints and delegate and keep track of tasks within each milestone. We will tag each task with the milestone in which they are in and make sure that we are making due progress with these tasks so that they are completed in time for the completion of the milestone. This will also help us to ensure the tasks are delegated equally within our team so that no one's schedules are overloaded and we are sharing the work fairly between us.

Resource Considerations

In regards to resource considerations, there are various resources required throughout the development of our project. Firstly, human resources, we must allocate our human resources effectively by delegating and assigning roles to team members based on their specific skills. For example, one team member might have specific expertise in MySQL whereas another might feel more confident focusing on the front-end development. Other resources we should consider include communication tools and meeting spaces. We need to have effective systems for communication and utilise University meeting spaces and lab times to best make use of these resources available to us. We also need to ensure every team member has equal resources in terms of software and hardware. Every team member has access to the necessary hardware devices to complete their duties and the software that we are using is all software we have all used previously and therefore, have access to it.

Requirements Elicitation:

Potential Stakeholders:

- University of Otago Students - The primary users we have in mind are University of Otago students, this web app will be used in the majority by students to manage and keep track of their due dates. It is student data we will be using that we need to securely manage. This project should be a positive addition to student's assignment management.
- University of Otago Lecturers - This project will also be utilised by lecturers. It should provide useful analysis of deadline clashes and student progress on deadlines a lecturer has set.

Functional Requirements:

- Send notifications/reminders when students have not made recent progress on an upcoming due date
- Produce an up-to-date calendar of the user's upcoming due dates
- Reports back to lecturers, conflicting deadlines for students in their class
- Allow students to set study blocks in the future, to plan study time
- Reports back to students which assignments are a higher priority

Non-Functional Requirements:

- Easy to use from a student's perspective, simple design and intuitive processes.
- Reliably notifies students of upcoming due dates
- Ensures student privacy by protecting schedule information

User Stories

1. As a student, I want to be able to quickly see which assessments I have due that week.
Story Estimation - 2
2. As a student, I want to see my calendar of deadlines and important dates.
Story Estimation - 8
3. As a student, I want to set blocks of time in my calendar to assign as study time.
Story Estimation - 1
4. As a student, I want to see a report of what work is a high priority for me.
Story Estimation - 2
5. As a student, I want to be reminded about upcoming deadlines.
Story Estimation - 5
6. As a student, I want my schedule and personal information kept protected from other users.
Story Estimation - 2
7. As a student, I want to record my working time so I can keep track of how much time I've spent on each assignment.
Story Estimation - 2
8. As a lecturer, I want to be able to view potential deadline clashes for my students.
Story Estimation - 5
9. As a lecturer, I want to be able to assign new assessments that are pushed out to my students.
Story Estimation - 2
10. As a lecturer, I want to be able to change assessment details for my students.
Story Estimation - 3
11. As a lecturer, I want my students notified every time I change a deadline.
Story Estimation - 1
12. As a lecturer, I want a generalised report of how my students are progressing with an assignment.
Story Estimation - 5
13. As a user, I want to be able to sign in to my profile so that I can view my relevant information.
Story Estimation - 3

