**Classroom Connect**

*Project Management Plan*

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# 1. Project Summary

## 1.1 Project Overview

The Classroom Connect software is meant to serve as a platform for connecting students and professors in the s ame classroom via a poll-result interface that gauges students understanding of course material.

## 1.2 Project Scope

The project scope is primarily to collect and provide easy to interpret, one dimensional poll results. Providing a solution for one-on-one contact between peers, or between a student and their professor, is out of the scope of this project. Additionally, collecting or propagating a ny information outside o f lecture hours is outside of the scope of this project.

## 1.3 Development Process

The development process and steps of execution that best suit our schedule and work flow would be the Iterative and Incremental development process. This process best suits our team’s workflow because the specific requirements are not entirely understood yet, and the scope of the project - effort wise - is not yet fully known on a technical scale. This lack of knowledge in understanding the requirements makes the Waterfall process unusable since that process relies on requirements being known and solidified early within the development phase. Our team would better rely on a process which helps to incrementally complete major aspects of the project and to revisit and optimize in future weeks of the process. The Iterative and Incremental process p rovides modular development in that software is developed and combined in small nodes which are ‘complete’. This will ensure that we will have a working minimal viable product (MVP) by a c ertain date, while we continue to revisit steps of the development. Our belief is that we cannot t ake a chance in going over time, and this process will help us keep on track to the overall goal.

## 1.4 Effort, Schedule, and Team

Our team is comprised of the following 4 people:

Anthony Chan

Jacob Wyner

Joe Cao

Kyle Wright

**Total Effort: 2.5 person­months (59 person­days) Project Duration: 13 w eeks (3.25 months)**

**1.5 Assumptions Made**

No major assumptions need to be made regarding the development of this project.

# 2. Detailed Effort and Schedule

The estimates laid out within this table are based on previous predictions of workflow from other process plans a nd outlines. In summary, with the Iterative and Incremental software development process, the timeline provided below gives the outline of start and ‘soft’ due dates of general tasks. Testing phases are not necessarily provided in the table since every code module is assumed to require testing prior to completion.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **#** | **Task** | **Estimated**  **Effort**  **(person ­ days)** | **Start Date** | **End Date** | **Person** | **Actual Effort (man ­ hours)** |
| **1** | System Research & Design | 9 | Sept. 26 | October 6 | Chan,  Wyner,  Wright, Cao |  |
| **2** | Detailed Design | 5 | Oct 6 | Oct 12 | Chan,  Wyner,  Wright, Cao |  |
| **3a** | Database Setup | 13 | Oct 12 | Oct 28 | Chan, Wright |  |
| **3b** | Client Setup (API Integration) | 13 | Oct 12 | Oct 28 | Wyner, Cao |  |
| **3c** | Client UI Design | 13 | Oct 12 | Oct 28 | Cao,  Wyner |  |
| **4a** | Database Integration | 5 | Oct 28 | Nov 3 | Chan,  Wyner,  Wright, Cao |  |
| **4b** | Client DB integration | 5 | Oct 28 | Nov 3 | Wyner, Cao,  Wright, |  |
|  |  |  |  |  | Chan |  |
| **5a** | DB / Server Deployment | 7 | Nov 3 | Nov 11 | Chan, Wright |  |
| **5b** | Client Deployment | 7 | Nov 3 | Nov 11 | Cao,  Wyner |  |
| **6** | Client / DB Integration Testing | 5 | Nov 11 | Nov 17 | Wyner, Cao,  Wright, Chan |  |
| **7** | Code Module Formal Testing | 7 | Nov 17 | Nov 25 | Wyner, Cao,  Wright, Chan |  |
| **8** | Rework, Retouches, Final | 8 | Nov 25 | Dec 16 | Wyner, Cao,  Wright, Chan |  |

**The total estimated e ffort in person­days is: 59 person­days**

## 3. Team Organization

Team organization is a pivotal aspect of project success. Our roles are generally refined and specified here, however w e work with the mindset of an agile start up - our roles are defined, however at certain times we will all be wearing all kinds of ‘hats’. Below is our team’s organization:

1. *Overall Project Manager:*  Kyle Wright

Kyle’s ability to initiate conversation and facilitate conversation around the idea makes him best suited to the r ole of our Overall Project Manager. His skills in both C, Java, and more generally soft skills of discussion facilitation will make him a pivotal partner in this project. Kyle will assist Anthony and Jacob in the networking between the server and clients, and will give Joseph a hand in UI/UX Development.

1. *Databasing Developer Lead:*  Anthony Chan

Anthony has a wide variety of knowledge of the task flow and processes of software development, having recently worked at a scratch startup as the primary app developer on that team. Anthony has w orked alongside primary database developers, and has a general understanding of the n etworking process required to create a successful server - client software service. Anthony will work closely with Jacob to ensure a solid and secure http connection between the server a nd the client.

1. *Front End Developer Lead:*  Jacob Wyner

Jacob is a bright minded individual with knowledge of client development. Jacob will work closely on the d evelopment of the client, deciding - with the help of joseph - visualization APIs, P2P APIs, etc. to use to provide information to the users. Jacob will also work on the development of user authentication and registration.

1. *Quality Assurance & UI/UX Lead:* Joseph Cao

Joseph has extremely useful knowledge of the use of Git and will help Anthony, Jacob, and Kyle all stay on track with the best practices of such. Joseph will oversee the development of the user interface and experience - with collaboration with everyone as well. In addition, Joseph will help to keep everyone on track with the best practices of code development, documentation, and testing phases. W hile everyone should be acting as their own QA in some ways, Joseph will be the final decider of the modular software iterations created each week.

## 4. Hardware and Software Resources Required

The only hardware resource required is a workstation for each group member capable of the following:

* Connecting to the internet, and thus Google’s networked services
* Writing and compiling C/C++ (potentially Microsoft Visual Studio C++ Software)

## 5. Quality Plan

The quality control process of this project will consist of the following:

* *Software Requirement Specifications:*  Review completed by our team & external groups not working on the project
* *Unit Testing:*  All programmers create and complete unit tests for his / her modules. In addition, our dedicated QA will contribute other unit tests to enhance code specifications.
* *System Testing:*  After deployment, our servers must be tested for security & data leaks, based on a System Test Plan which will be created & reviewed.
* *Design Review:*  Document will be created and critiqued by our team and focus groups.

## 6. Risk Management Plan

User information is a sensitive issue that is of the utmost priority. If the team decides to implement & integrate A PIs for user registration based on other services, encryption of user data and clarification of d ata scopes will need to be reviewed and checked during implementation. Other than safety of user information, there are no other known risks with this project that may need overview.

## 7. Project Tracking

Project tracking will occur weekly and monthly via individual, team, and weekly logs, weekly meetings with team m embers and faculty. Each project member will be in charge of tracking his / her progress in tandem with the project outline, and to report hours for each module completed for later p rocessing.