

Group 5: Analysis and Design Report

Clerkship Rotation Checklist

(Project from Dr. Eliza Beth Littleton)

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Introduction

Our team decided to work on the web app project for the Department of Surgery. First off, it fulfills a need for medical students completing their Surgery rotation. With this web app, students can monitor their progress and goals in real-time, which can help them stay on track and achieve their objectives more efficiently.

Secondly, the web app is useful for teachers, coordinators, and directors who oversee the students' progress. By having access to each student's goals and achievements, they can better evaluate their progress and provide personalized feedback and support. Additionally, the web app can help the department streamline its administrative processes by allowing better tracking and reporting on student progress.

Thirdly, privacy is crucial for medical students, and the web app's design ensures that students can maintain their privacy while still allowing them to share their progress with their teachers and coordinators. This feature provides a secure and confidential way for students to report their achievements, which can help them feel more comfortable and motivated to work towards their goals.

Lastly, the web app's feature that displays how many other students have achieved certain goals can promote healthy competition and motivate students further. This feature can help students feel more connected to their peers and foster a sense of community, even in a remote learning environment.

Overall, your team's decision to work on this web app project for the Department of Surgery is an excellent choice. It addresses a real need, provides essential features, and has the potential to positively impact medical students, teachers, and coordinators.

User Study

Our introductory meeting with Dr. Littleton was on the 20th of March 2023. We had a comprehensive discussion with the professor about the basic idea of the project, the users that will be using the product and the requirements. During this discussion, we gathered the following information:

- **Main Goal:**
 - To build a web or a mobile application.
- **Basic Structure:**
 - Build a checklist that keeps track of the tasks.
 - Students enter the information into the application.
 - Key is for the students and resident doctors to see quickly what the students are yet to complete.
 - Estimated count of the stakeholders:
 - 8-10 students
 - 8-10 resident doctors
 - 1 admin user
 - The admin should have access to the information of the rotation on various sites, the average pace of the students and the skills gathered at each site.
 - Privacy must be maintained so the students should not see each other's progress.
 - The admin has access to all the students' rotation information and the status of the tasks.

We also had the opportunity to talk to Dr. Afflu, a resident doctor and a general surgeon at Presbyterian, who had incorporated a pen-and-paper checklist among the students. We gathered the following valuable information:

- Students can choose the tasks they want to perform and can have multiple resident doctors as their mentors.
- Students log the work into the checklist and the admin has access to it.
- Checklist must be simple as the students do not have the time and patience to log their details.
- Resident doctors must be able to grade the quality of work done by the students.
- Admin has access to all the data so they can assess if the students are being benefitted by the tasks performed at a certain location and do they need to be transferred elsewhere.
- Checklist must be dynamic so the admin can add or remove tasks based on need.

Design

It is a single web application. Every user will be given a different view based on their roles. This can be achieved by providing a different login portal.

- **Student View**
 - Students will have all the tasks displayed in a checklist format.

- They will be able to check the items that they completed and specify the location at which they completed it.
- Students can see only their own progress and not their peers' progress.
- **Resident Doctor View**
 - The resident doctor will see the students' overall progress.
 - They do not have access to individual student progress.
- **Admin View**
 - The admin has access to all the information about the students' progress.
 - They can see the quality of learning and can transfer the tasks and students to various locations.

Contribution

Name	Contribution
Sebi Samuel	User Interview and Design
Shriharsha Vaidhyam	User Interview and Design
Siddhesh Shimpukade	User Interview Documentation
Vishruth Reddy	User Interview and Design