**Criterion A: Planning**

# **Scenario:**

My client for my Internal Assessment is my dad, Sujas Dasgupta. In this scenario, my dad is the owner of a COVID testing facility. He needs my help in developing a primary place for customers to view and book available appointments to receive COVID tests. He wants to be able to enter the available time slots for users to choose from. In addition, he wants users to have the option to cancel an appointment 24 hours before it is scheduled in case something arises. Sujas also wants to send confirmation emails to users to confirm their appointment requests.

After discussing with my advisor, who is also Sujas, I have decided to make a solution by developing a website. By building a website, I will be able to provide the testing facility with a landing page for users to view and set up appointments (from a database). However, before reaching the main page, a sign-in will be needed to distinguish the user from the owner or customer. The owner will have to correctly enter his username and password (which will get set up the very first time the page gets opened). Once the owner gets authenticated, he will have many controls which allow him to enter appointment slots to display onto the website. All the appointment information (date/time) will be stored in a MySQL database so that the information will always be stored even after the website is closed.

From the users, I will gather basic/primary information about them (name, age, email) and store their inputs into a MySQL database. The information stored in the database will later be used to send confirmation emails to the users regarding their status on their appointment. I will also grant users the option to cancel their scheduled appointment by deleting their time slot from the MySQL database.

While developing a solution I will be implementing various levels of complexity by using maps, sets, database tables, classes, and more. With the complexity required for the solution, I am positive that the final product/solution will be beneficial to my client and hopefully to other COVID testing facilities in the near future.

My choice of client and advisor is appropriate because he has experience with programming and will guide me through the use of technology to make the solution to the problem successful.

# **Rationale:**

I am developing a website because the COVID pandemic is still impacting many people’s lives around the world. By building a website it will be quicker and easier for users to book a COVID test appointment. Booking COVID test appointments are very relevant since COVID cases continue to rise, making it important to check if one receives a positive or negative test. Through an online website, users will be able to book appointments without any face-to-face interaction while navigating through the user-friendly website. In addition, through an online website for booking appointments, the traditional long wait in line is completely eliminated.

Developing the solution will be beneficial for me since I do not have much experience with building websites and will be able to learn/use new technologies/languages like TomCat, HTML, and CSS while developing a solution.

# **Success Criteria:**

1. Show a login page once directed to the app (to authorize owner)
2. Allow owner to add, edit, and delete available appointment slots/timings from the app
3. Store all the data regarding appointments and user information into database
4. Display appointments that owner added to the website
5. Send a confirmation email once a user schedules an appointment
6. Allow user to cancel a scheduled appointment and mark the slot available
7. Email user a reminder about the scheduled appointment in advance
8. Give the manager the ability to look at key metrics

**Word Count: 529**