Criterion A: Planning

Defining the Problem:

My client is Skin Studio by ▮▮▮▮▮▮▮▮▮▮▮ She has recently been facing an issue in scheduling her appointments due to the increase in demand.

Currently the appointments are scheduled over the phone handled by a receptionist, which is noted manually in an appointment diary. Considering the current pandemic the availability of staff for noting appointments is not reliable and due to busy schedule of the client, the patients are finding it difficult to get in touch with the client to schedule their appointments, One of the other problem the client is facing is human error made by the staff noting the appointments and making mistakes in allotting times to the client's customers as timings clash sometimes

The client wishes for a program that helps schedule her appointments throughout the day as well as remind her when it is. The program should be able to manage appointments for online consultations and offline consultations at the clinic.

The goal of this program is to enable the client to schedule her appointments in an organized format. This program will make it convenient for the patient and the doctor to coordinate the appointments and send reminders to both so they don't miss their scheduled appointments. It will also help keep patient appointment history for the doctor to schedule treatment sessions, which may require recurring sessions over couple of months. This program will make it easier and less stressful for the client as it will give a systematic order of all appointments.

Word Count: 249

Rationale for the proposed solution:

My decision to develop this web application in Python is because it is a dynamically typed and interpreted language carrying out type checking at run time compared to Java. I prefer Python because of its simplicity, ease of use and accessibility. Moreover, Python has a low cost of program maintenance.

For the web interface I have chosen Django as it is considered to be the best Python web framework and it is great for creating database driven web applications. Django has a powerful template engine and its own markup language with many tools. Using Django the web application accepts HTTP requests, applies the business logic provided by python classes and methods and provides HTTP response to client's requests. Therefore, it gives each template access to specific data to be displayed or processes data beforehand. There are many third party applications that come with Django and can be integrated in this project. Since Django can be extended with plugins it will allow to add specific features later and gives scope for customization.

I chose MySQL as it s an open source free of cost platform as compared to SQL Server. It is more flexible and supports several storage engines. MySQL provides comprehensive support to every application need and provides connectors and drivers that allow all forms of applications to make use of MySQL as a preferred data management server.

Hence using Python, Django and MySQL. I will be able to develop a low cost and customizable solution for my client.

Word Count: 249

Success Criteria:

1. The Web application will consist of a Doctor Module, Patient Module and Appointment Module.

2. The access page will allow the users to register incase of new customer or login incase of an existing customer, as a doctor or patient.

3. First time users will be allowed to register using their mobile number, which will be used as their username after which they can set a password.

4. Incase username or password field is empty or incorrect, an error message will be displayed and user will be prompted to fill the field.

5. Registered users will be logging in with the username and password.

6. Incase user forgets username or password the user will be asked to provide a mobile number on which an OTP will be sent for authentication.

7. After login the user will be directed to an appointment scheduler page wherein the user will choose the preferred date, along with type of treatment.

8. All available appointment slots on that time, date will be displayed for the user to choose along with the option for an online or physical consultation.

9. On booking the doctor and patient will receive an intimation via a SMS.

10. The user will be allowed to cancel or reschedule an appointment.

11. The user will be allowed to update their information filled during registration

12. The doctor module will be provided a dashboard to set time slots for appointment booking, view and modify booked appointment list and view patient appointment and booked appointment history.

13. A Log-out button will be provided for the user to exit the page