**Web Technologies and Applications Project**

**Title :** Appointment booking system.

**Summary:**

Our aim is to create a web application using various full stack development tools to mimic an appointment system for a private practice. Users would be able to book consultations with various doctors based on their availability.

**Web Framework:** The web framework used to create this project was Django.

**Front end:** The content of the various user interactive pages was created using HTML with CSS for styling all the pages across the application in an uniform manner. Responsiveness of the pages was achieved using Bootstrap. JavaScript functions were used for DOM manipulations and Session cookies are used to manipulate sessions for eg, in login functions. Ajax and RESTful API’s were used to communicate with the backend.

**Back end:** The server side logic and database connectivity uses python. The database used is SQLite 3. Django Forms and Models is used across the project. A superuser ‘admin’ is created to directly add/edit/delete tables from the database. (Note: The username for superuser ‘admin’ uses the password ‘admin’, Django didn’t let me change it the password requested in the coursework)

**Functionality Implemented:**

1. **Login**

There are 3 types of users: admin, patient and doctor. We can book appointments only if we login to the system with the registered uname and password stored in the db(List of user names in the table below ). Once logged in the user can book appointment with any doctor available in the search list. All the basic functionality of login is implemented, like wrong user inputs are handled. And once you login, based on the type of user we are redirected to their respective home pages (Session storage, AJAX and JS used to implement this functionality).

Graphical user interface, application

Description automatically generated

1. **Searching for a doctor based on department or doctor name**

Users can search for a doctor based on the doctor name or department from the dropdown menus that are populated dynamically from values in the db tables. We need to set dropdown values and click on search button. Then we can click on the ‘Book Appointment’ button to book appointment with the doctor. If we are already logged in, then we are redirected to the appointment booking else we need to log in to book appointment. Admin and Patients can book appointments.

Graphical user interface, website

Description automatically generated

1. **Booking an Appointment**

To book an appointment, choose a doctor from the search page. If you are a patient, all your details are automatically filled in the form and you wont be able to view any fields. You will just have to choose the date and the available appointments will appear. We would be able to choose only free appointment times. If the appointment is already booked, then we wont be able to book the appointment at the same time. If you are booking an appointment as an admin, then we need to enter the patients name and patient id.(Note : *use date 17/06/2021 to check this functionality as there are appointments for all doctors on that date and you wont be able to book appointments in time slots that are already booked*)

Graphical user interface, text, application

Description automatically generated

**Graphical user interface, text, email

Description automatically generated**

1. **Doctors viewing their own appointment lists**

When we login as a doctor, we should be able to view the appointments for the particular doctor displaying patient name, date and time of appointment.

Graphical user interface, text, application, email

Description automatically generated

1. **Application’s admin user**

When we login as an admin, we should be able to book appointments, add new patient and create new logins for various new users.

Graphical user interface, application

Description automatically generated

1. **Other supporting links : Contact us, submitting queries, Blog with game**

To give the application a completeness, pages like contact us and blog are available.

Blog showcases a game which keeps count of the number of spots caught in one minute and some links regarding covid.

Contact us page has some basic details of the practice and a place to submit queries.

Graphical user interface

Description automatically generated with medium confidence

1. **Super user ‘admin’**

Super user admin can login and directly add, delete and update the database.

Again note : super user admins username is admin and password is admin.

**User name table**

|  |  |  |  |
| --- | --- | --- | --- |
| id | usertype | username | password |
| 1 | admin | admin | admin |
| 2 | doctor | nitya | nitya |
| 3 | doctor | chocka | chocka |
| 4 | doctor | neethu | neethu |
| 5 | doctor | neha | neha |
| 6 | admin | admin1 | admin1 |
| 7 | patient | paddy | paddy |
| 8 | patient | pikachu | pikachu |
| 9 | patient | donald | donald |