Doctor-Patient Appointment Server

1. Project Overview:

The Doctor-Patient Appointment Server is designed to facilitate the scheduling of medical appointments between patients and doctors. This server-based system will allow doctors and patients to register, log in, request and search for appointments based on various criteria. The project will utilize socket programming to establish communication between clients and the server, ensuring secure and efficient data exchange.

2. Project Objectives:

1. **User Registration and Authentication:** Implement a registration system for both doctors and patients, where their information is securely stored on the server. Users will be able to log in using their credentials.
2. **Appointment Request:** Patients should be able to request appointments by specifying the doctor's specialization, preferred date, and time. These requests will be stored on the server.
3. **Appointment Search:** Doctors should be able to search for appointment requests based on criteria such as disease, doctor's specialization, date, and time.
4. **Data Display:** Display detailed information about patients and their appointments, allowing doctors to view patient records and scheduled appointments.

3. Main Features:

1. **User Registration:** Capture and store user information, including name, contact details, and specialization (for doctors).
2. **User Authentication:** Verify user identity during login to ensure secure access.
3. **Appointment Request Submission:** Patients can submit appointment requests with details like doctor's specialization, date, and time.
4. **Search Functionality:** Doctors can search for appointment requests based on different criteria.
5. **Data Storage:** Save user profiles, appointment requests, and appointment records securely on the server.
6. **Real-time Communication:** Implement socket programming to enable real-time communication between clients and the server.

4. Expected Results:

Upon completing the Doctor-Patient Appointment Server project, This system enables doctors and patients to efficiently schedule and manage medical appointments. Users will be able to register, log in, submit appointment requests, search for appointments, and view patient data securely.