**Requirement Analysis: -**

1. **Find Availability of Doctors by Specialty:**
   * Users can search for doctors by their specialty (e.g., paediatrics, cardiology).
   * The system displays a list of doctors matching the chosen specialty.
   * Each doctor's profile should show available appointment slots.
2. **Find Doctors Near Location:**
   * Users can enter their location (e.g., zip code, address).
   * The system displays a list of doctors near the user's location.
   * Doctors are sorted by distance, with the closest doctor appearing first.
3. **Book Appointment and Receive Confirmation:**
   * Users can select a doctor and choose an available appointment slot.
   * Users can confirm their appointment by providing basic information (e.g., name, contact details).
   * The system sends a confirmation notification to the user via email or app notification.
4. **Conflict Management:**
   * The system prevents double booking appointments for doctors and patients.
   * If a chosen slot is unavailable, the user receives a message explaining the conflict.
5. **Appointment Reminder with Directions:**
   * The system sends an automated reminder notification to the user one hour before the appointment.
   * The notification includes a link to driving directions to the doctor's clinic.
6. **Doctor profiling and management:**
   * For any doctor to show up on Home Page they have to register themselves by giving the information.
   * The details include personal information like Name, Email, Address, Phone Number & Professional details like Specialization, Experience, Consultation Fees and Timings.