**HOSPITAL CHATBOT**

**ABSTRACT**

The Hospital Chatbot is an advanced, interactive system designed to simplify the management of hospital appointments through an intuitive and user-friendly interface. The application, developed using Java Swing, enables patients to effortlessly interact with the chatbot to perform essential tasks such as viewing available doctors, booking appointments, and canceling or modifying existing appointments. The system is versatile, allowing the user to select from multiple hospitals, each with its list of specialized doctors. It aims to improve the healthcare appointment process by offering a convenient, automated solution for managing time slots, ensuring smooth interactions for users.

This chatbot application provides real-time updates, ensuring no double bookings occur by dynamically checking the availability of time slots for each doctor. It allows users to select their preferred hospital, view the list of available doctors, choose a suitable time slot, and book the appointment with just a few clicks. If the time slot is already booked, the system provides an immediate notification. Additionally, patients can cancel their appointments, with the system automatically adjusting the available slots to accommodate other patients. The patient experience is enhanced with feedback messages and the generation of an appointment confirmation letter that can be displayed on the screen for verification.

The interface of the Hospital Chatbot is designed to be visually appealing, with color-coded themes and clean layouts to ensure ease of use. The program’s architecture supports the storage of appointments for each hospital and doctor, using a map-based system that organizes the data effectively. With its innovative features, the Hospital Chatbot offers a seamless user experience while ensuring the efficient management of hospital appointments for both patients and hospital administrators.

**KEYWORDS:**

Hospital Chatbot, Appointment Management, Java Swing, Healthcare Automation

**SOFTWARE REQUIREMENTS:**

* **Languages:** Java
* **Database:** Not Applicable
* **Tools/IDE:** Eclipse/IntelliJ IDEA

**HARDWARE REQUIREMENTS:**

* **System Specifications:** Minimum 4 GB RAM, 100 GB Hard Disk
* **Operating System:** Windows 10/11, macOS, Linux
* **Processor:** Intel Core i3 or equivalent

**TEAM DETAILS:**

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