Basic Details of the Team and Problem Statement

Ministry/Organization Name/Student Innovation:
Government of Himachal Pradesh

PS Code: SIH1383

Problem Statement Title: Optimizing Doctor Availability and Appointment Allocation in Hospitals through Digital Technology and AI Integration.

Team Name: HEXAGON

Team Leader Name: Bandaru Gracy

Institute Code (AISHE): 76

Institute Name: Lakireddy Bali Reddy College Of Engineering

Theme Name: HealthTech

SMART INDIA HACKATHON 2023
SIH

Idea/Approach Details

Describe your idea/Solution/Prototype here:

The proposed system works as follows:

➢ Doctors are equipped with RFID tags or mobile phones with proximity sensors.

➢ As doctors move around the hospital, their presence is detected by RFID readers or mobile phone proximity sensors.

➢ This information is transmitted to the central system in real time.

➢ The central system uses AI to allocate appointment slots to patients based on the doctor's presence, the patient's needs, and the number of waitlisted patients.

➢ Develop a chat bot for all patient queries

➢ Patients are notified of their appointment slots via SMS or email.

2

Add process flow chart or simulated image of prototype or any relevant image related to your idea

Describe your Technology stack here:

➢ **Front-end development:** Angular, React, or Flutter

➢ **Back-end development:** Python, Node.js,

➢ **Database:** PostgreSQL, MySQL, or MongoDB

➢ **Cloud computing:** Google Cloud Platform, Microsoft Azure

➢ **Machine learning:** TensorFlow, PyTorch,or scikit-learn

➢ **Appointment scheduling:** Greedy algorithms, dynamic programming

➢ **Medication information retrieval:** Natural language processing and machine learning

Idea/Approach Details

Describe your Use Cases here

➢ Receive real-time updates

➢ Integrate with RFID

➢ Automatic doctor allocation with AI integration

➢ Schedule appointments

➢ Chat bot for answering patient queries

➢ Availability in Local Languages

Describe your Dependencies / Show stopper here

➢ Reduced wait times for patients

➢ Use of advanced technologies such as face detection, proximity of mobile phones, RFID.

➢ Integrate with the electronic health record (EHR) system.

➢ Generate reports on the appointment scheduling process

➢ Increased efficiency for hospital staff

➢ Improved patient experience

➢ AI to automate the identification of doctor availability and appointment slot allocation

Important Pointers

Please ensure below pointers are met while

➢ Kindly keep the maximum slides limit to 4 pages

➢ All the topics should be utilized for description of your idea

➢ Try to avoid paragraphs and post your idea in points

➢ Keep your explanation precisely and easy to understand

➢ Idea should be unique and novel. If it has a business potential more weightage will be given.

➢ Apart from this PPT abstract of your idea will be asked separately while submitting

➢ You need to save the file in PDF and upload the same on portal. No PPT, Word Doc or any other format will be supported

➢ You can delete this slide (Important Pointers) when you upload the details of your idea on SIH portal.

Team Member Details

Team Leader Name: **Bandaru Gracy**

Btech   CSE   III

Team Member 1 Name: **Adirala Samuel**

Btech   CSE   IV

Team Member 2 Name: **Laveti Manisha**

Btech   CSE   III

Team Member 3 Name: **Ganta Mercy**

Btech   CSE   III

Team Member 4 Name: **Dharanala Surya Vamsi**

Btech   CSE   II

Team Member 5 Name: **Kondru Brahmanaidu**

Btech   CSE   III

Team Mentor 1 Name: Type Your Name Here

Category (Academic/Industry):   Expertise (AI/ML/Blockchain etc):   Domain Experience (in years):

Team Mentor 2 Name: Type Your Name Here

Category (Academic/Industry):   Expertise (AI/ML/Blockchain etc):   Domain Experience (in years):