IoT Based Personal Healthcare Monitoring and Recommendation System using AI Chatbot

Problem Statement

- Patients' lack of knowledge.

- Unavailability of the doctors: precautionary measures based solely on assumptions.

- Few healthcare systems that can predict health problem and then recommend its solution autonomously.

> Secure Personal Medical Data
> Straightforward Chatbot
> Simple Interface w/ Light Model

> Internet Dependent (Time Lag)
> Sensor Accuracy & Maintenance
> Can Only Predict and Identify Specific Illnesses & Solutions
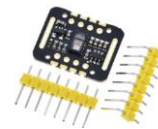
Acknowledgement

I would first like to thank my supervisor, Ms. Saras for guiding me through this project. I would also like to acknowledge Dr. Rajermani who kindly provided me with a laptop to complete this project as well as my friend Taha, who provided his phone for testing.

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Project Objectives

- Detailed study on the important factors and body vitals. Body vitals are the first that indicate health problems, so they are the most important factors to consider in this healthcare system.

- Research different sensors to design an IoT based monitoring system

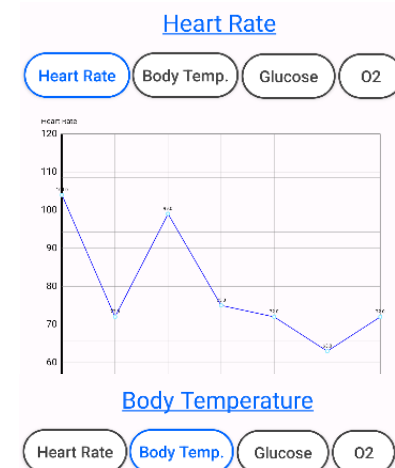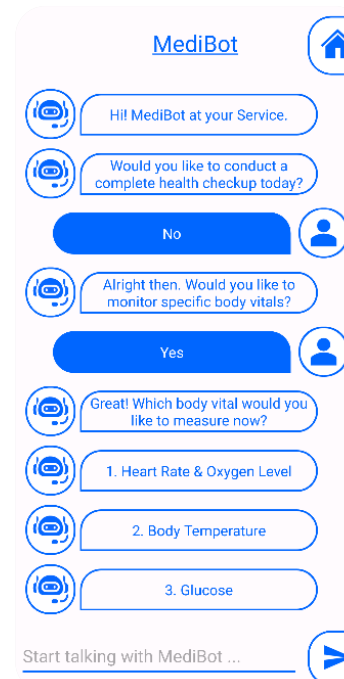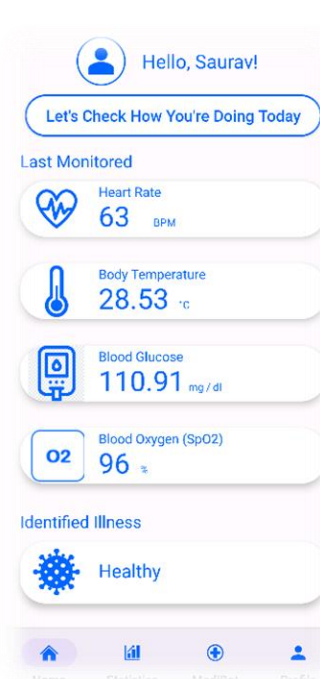
MAX30102 Sensor
- Measures Heart Rate & Oxygen Level

MLX90614 Sensor
- Measures Body Temperature

NIR Sensor
- Measures Blood Glucose Level

- Develop a mobile application with an AI chatbot recommendation system, that graphs recorded information, identifies health issues and provides solutions.

- To conduct testing to ensure effective accuracy
  - Testing of the Sensors
  - Application Functionality
  - Overall Usability

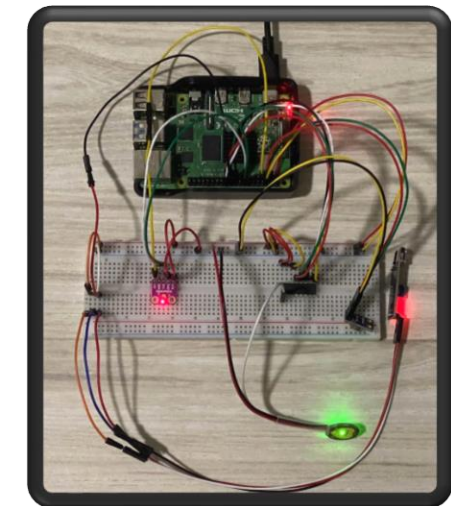## Project Features

Heart Rate   Temp.   Glucose   O2

Register & Login for Personal Healthcare

Conduct Checkup of Body Vitals & Symptoms

Use IoT Model Sensors

Identify Diagnosis and Recommend Solution by referencing checkup information and medical info.

Graph & Report Each Body Vital