**User and System Requirements**

**Project Title:** Health AI: A Personal Healthcare Companion

**Course Name:** IDP/Capstone Project

**Course Code:** CSE-360

**Program:** CSE-20

**Session:** 2019-2020

**Group No:** B3

**User Requirements**

1. The system shall understand human language and various health metrics.
2. The system shall detect illness/disease.
3. The system shall suggest relevant general instructions for the cure.
4. The system shall suggest relevant doctors.
5. The system shall have an emergency ambulance/contact system.

**System Requirements**

* 1. The system shall take human voice/text as input via mobile phone to interpret the meaning and understand the symptoms.
  2. The system shall use Blood Pressure Machine to measure blood pressure and interpret the significance of the received value.
  3. The system shall use MAX30100 Finger Oximeter Heart Rate Module to measure oxygen level and interpret the significance of the received value.
  4. The system shall use MLX90614 Contactless Temperature Sensor Module for Arduino to measure temperature and interpret the significance of the received value.
  5. The system shall process all the provided information using machine learning and database.
  6. The system shall give prediction about the illness/disease type with 99% accuracy.
  7. The system shall give prediction via text as well as voice output.
  8. The system shall suggest various general instructions for the cure on the basis of the predicted disease/illness by processing database and machine learning model.
  9. Instructions shall be given via text as well as voice output.
  10. The system shall have a database of available doctors’ contact information.
  11. On the basis of predicted disease and doctors’ expertise, the system shall suggest various doctors with the contact information.
  12. The system shall have an emergency button.
  13. If the button is pressed then an emergency message will be sent to the nearest hospital for ambulance service.
  14. Also an emergency help message will be sent to predetermined close contacts.