# SECOND INCREMENT

## Introduction:

RoboCare – A human friendly robot, one's own personal doctor. As its name suggests, this robot takes good care of his companion right from diagnosing the disease to notifying the user the nearest practitioner who can prescribe medicines. All that the robot needs are few inputs from the user and it does all the work on its own. RoboCare does take help of the Smart watch and the Smart Phone of the user to provide many other functionalities. Thus, RoboCare can be regarded as a guide to make a human's life illness free.

## Project Goal and Objective:

- Overall goal: To program a robot which can be used as a medical assistant.
- Specific objectives (problem statement): The main objective of the robot is to diagnose the disease that the user has depending on the inputs such as age, gender, symptoms, images etc. provided by the user.

## Specific features:

The Robot will perform following tasks:

- Use facial recognition technique to authenticate the user.
- Collect the data from the user regarding the symptoms age and gender from his voice and would use Natural Language Processing and also images to identify the issue
- Diagnose the disease depending on the inputs provided by the user
- Suggest nearest doctor depending on the type of disease to the user
- Remind the user about his/her appointment by sending notification

## Significance:

The robot provides the user with immediate information about the disease, nearest doctor and also keeps him notified about the appointment timings and prescription as and when it arrives from the doctor. Thus, the robot guides the user properly during its difficult times.

## Second Increment Report

## Existing API:

Used Android Studio 1.5.1 to develop the graphical user interface of the application and the inbuilt APIs for Speech to text conversion.

## Design of Features:

- Developed a user friendly GUI wherein after the user speaks, a dialog box appears which allows the user to select symptoms.
- After selecting a particular symptom, it will be added to the list of symptoms.
- The user can also modify it later as required by long pressing the symptom to be changed.
- After selecting the list of symptoms, after the user presses the 'Know Disease' button, the application predicts the disease depending on the symptoms provided.

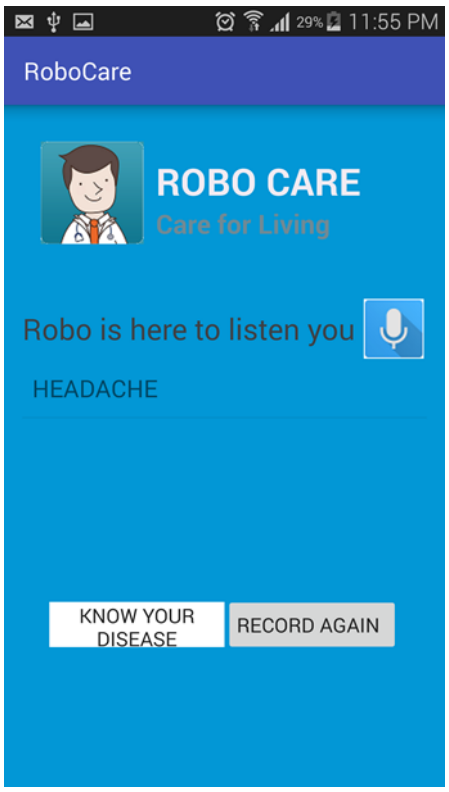
## Dataset:

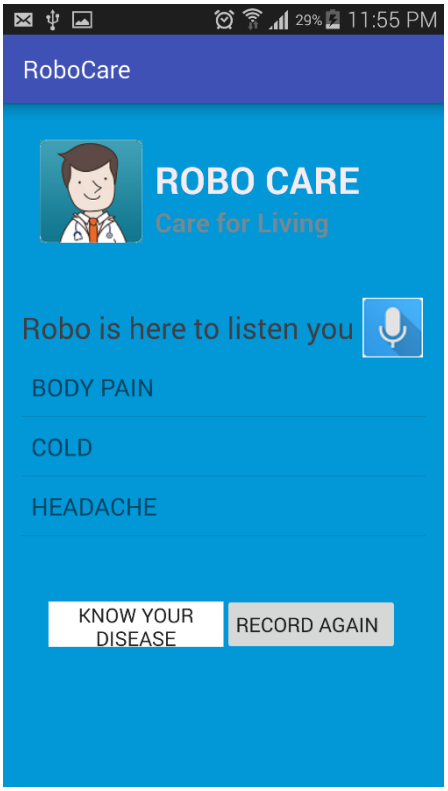
Developed a Comma Separated value (.csv) data sheet file consisting of information of various diseases and their symptoms.

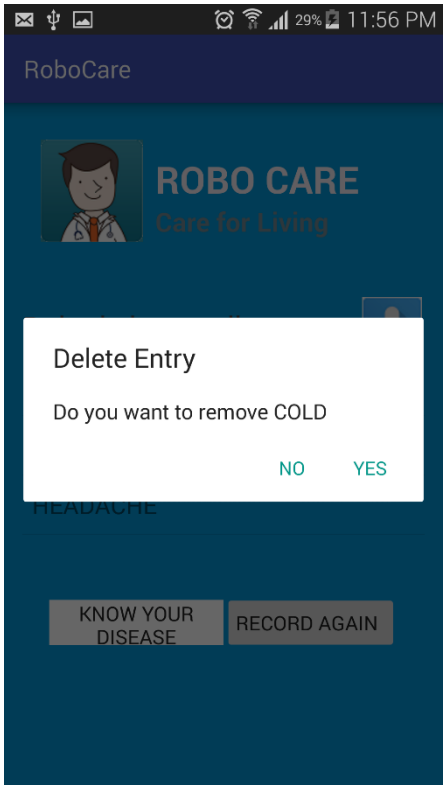
## Implementation:

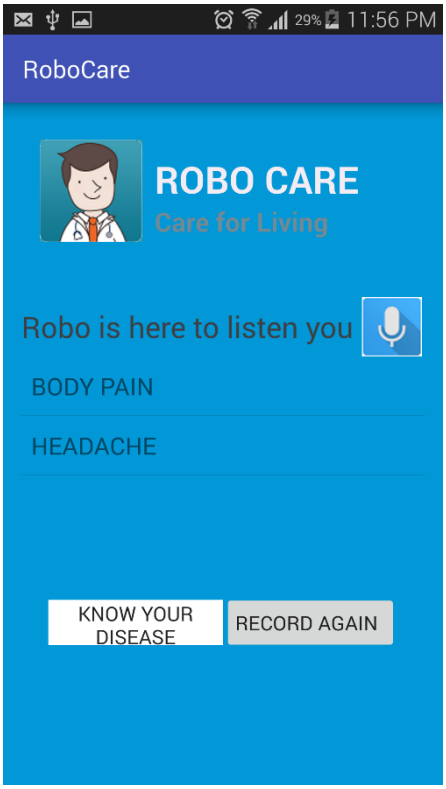
Application for a Smart phone

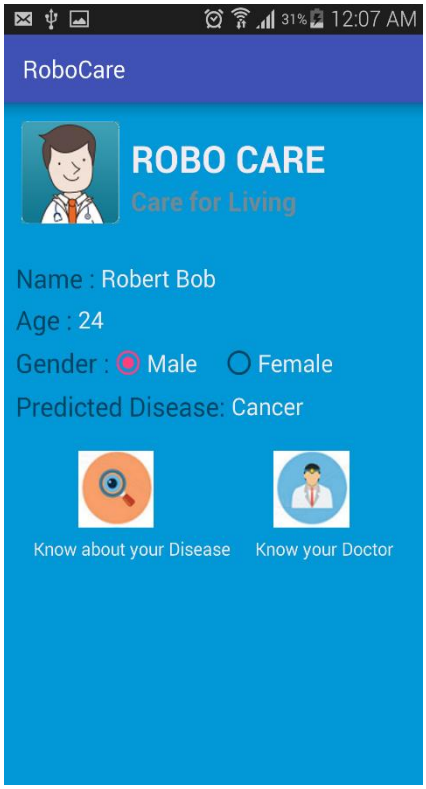
## Deployment:


29% 11:55 PM
RoboCare
ROBO CARE
Care for Living
Robo is here to listen you
HEADACHE
KNOW YOUR DISEASE
RECORD AGAIN


29% 11:55 PM
RoboCare
ROBO CARE
Care for Living
Robo is here to listen you
BODY PAIN
COLD
HEADACHE
KNOW YOUR DISEASE
RECORD AGAIN


29% 11:56 PM
RoboCare
ROBO CARE
Care for Living
Delete Entry
Do you want to remove COLD
NO
YES
KNOW YOUR DISEASE
RECORD AGAIN


29% 11:56 PM
RoboCare
ROBO CARE
Care for Living
Robo is here to listen you
BODY PAIN
HEADACHE
KNOW YOUR DISEASE
RECORD AGAIN




GitHub URL:

https://github.com/anuja893/CS5542-Spring2016Group4

Project Management:

Member Name: **Dara, Venkata Sai Sandeep**
Work Completed:
1. Worked on the GUI Part
2. Classification of disease using Naïve Bayes Model.
3. Socket Programming

Time taken: 15 days
Contribution: 25%

Member Name: **Podili, Venkata Krishna**
Work Completed:
1. Created the GUI Part
2. Classification of symptoms by the application

Time taken: 12 days
Contribution: 25%

Member Name: **Anuja Sawant**

Work Completed:
1. Prepared dataset and report generation
2. Worked on speech to text part of the application.
Time Taken: 10 days
Contributions: 25%

Member name: **Shuchita Khandelwal**
Work completed:
1. Prepared the final updated dataset
2. Worked on speech to text part of the application.
Time taken: 10 days
Contribution: 25%

Bibliography:

https://www.nlm.nih.gov/medlineplus/encyclopedia.html
http://seer.cancer.gov/tools/seerrx/
http://stackoverflow.com/ \http://www.mayoclinic.org/