**PERSONALISED REMOTE HEALTH MONITORING SYSTEM**

**Execution description of code:**

* **Android :**
  + Mainactivity
    - Helps to establish connection with multiple bluetooth devices using MAC address and to receive data from BP and SPO2 devices
  + Loginactivity
    - It is an one time login screen to store the details about patient in remote database
  + NewConnectedlistener
    - This file is to receive data from Zephyr device continuosly
* **PHP:**
  + Insertion
    - The data from android device will be pushed into the insert.php file which will insert the data into the table
  + Summary packets will be generated for every 10 normal packet insertions
  + Clusters will be initialised at first insertion of data based on global normal range values and from the next insertion cluster centers will be updated based on the incoming values
  + After the generation of summary packets, the health parameters will be passed into Testdata.java
* **JAVA:**
  + Naive bayes classification:
    - The class for all parameter in each tuple is identified and genes are formed based on the class obtained (Testdata.java)
    - The gene formed is then passed on to the GA.java for severity index calculation
* **ANDROID APP:**

**Note:** Before using the app for the first time on a mobile phone, pair the mobile with the three devices (Zephyr, Nonin and BP device) via bluetooth.

* Install app-debug.apk on your mobile (Provided along with this readme file)
* Turn on wifi/mobile data, location, bluetooth on your mobile device.
* Open the app, the app will now fetch the latitude, longitude and/or the address of the location. If propoer data isn’t displayed, click on “Refresh” else click “Next”
* If using the app on a mobile for the first time, you will need to register by providing the patient’s personal details.
* Now wear the three sensor devices.
* Switch on the BP wrist band first and press the “start” button on the device to start measuring BP. The reading shown on the device’s monitor will increase gradually and after reaching a certain value, the reading starts decreasing. Once it starts decreasing click on “RECEIVE DATA” button on the mobile app and wait for a few moments.
* The BP systole and Diastole values are displayed on the BP device’s monitor and then forwarded to the mobile device. After this, the data from the Nonin Pulse Oximeter and the Zephyr are continuously moved and displayed on the mobile screen. The data is continuously moved to cloud in the background.
* **ONLINE CLOUD SERVER ACCESS:**

From a web browser go to: <https://openshift.redhat.com/app/login>

Username: [bharathi355@gmail.com](mailto:bharathi355@gmail.com)

Password: password

For modifying and pushing code to cloud refer the following tutorial.

Tutorial on git clone with openshift : <https://www.youtube.com/watch?v=3wp61fN3AQY>

Git Clone URL: ssh://5723a03a0c1e66536800015b@myphpapp- healthmonitoring.rhcloud.com/~/git/myphpapp.git/

url : <http://myphpapp-healthmonitoring.rhcloud.com/home.php>

mysql : <http://myphpapp-healthmonitoring.rhcloud.com/phpmyadmin/>

Database: myphpadmin

User: root

Password: oneadmin