Remote Health Monitoring System
Using a Mobile Phone
Project code : MWH2a-11

Supervisor : Professor Mow Wai Ho

Student name: Chan Kin Chung
Wat Ho Shing
Lee Kai Fung

Introduction
The population of older citizens in Hong Kong has increased considerably in the past 45 years. The number of people aged 65 or older grew to 12.8%. By 2031, the group of aged over 65 will be almost 37%. The aging population has a strong link to the health care system. Due to the shortage of doctors at hospitals, the patients need to be up for a long time. In order to alleviate the burden to the doctors and also the patients, our group has developed a remote system that can monitor a patient’s health continuously.

Aims and Objectives
- To build an android application that can measure patients’ heart rate
- A database for patients records
- An add on function to locate the nearest hospital to the patients by Google map
- To construct a cloud computing system by connecting the mobile application to the database server and web server, web site is designed to display patients’ record

Overview of the Project

Methodology

Mobile Apps
This is the Android Application architecture

Web Site
This is the web site architecture

Result

User Interface

Web Page

Deliverable
The remote health care control system comprises two parts, the connection between the Bluetooth HM heart rate monitor and the android phone, and the connection between the android phone and the cloud. The patient’s healthcare can be remotely controlled through the access of our application software in android platform. The application software uses Bluetooth as an access point for the connection of the Bluetooth HM heart rate monitor. After users measure the heart beat rate, this data can be transferred to the application software through the Bluetooth connection between the android phone and the server. The data is then interpreted by the software which provides an interface to upload the patient’s information and the daily record of the health parameters to the cloud through 3G or Wi-Fi communication. Only authorized doctor and patients with login accounts are accessible to the webserver to check the record. Eventually, the health record of the users can be demonstrated online and the simultaneous health monitoring system is thus achieved.