

## **ELEC5620 Project (Semester 2 / 2017)**

### **Personal Health Assistance Software Application**

#### **Project Requirements**

After three weeks of liaison, the ABC Company has composed this document to detail all the requirements of the potential PHA software application they are inviting for bidding. It is essential for bidder to prepare a complete software application architecture design to win the bid. The application they are looking for include the core functions, which are essential to support and enhance monitoring and managing their status experience. The design and implementation of the core functions will take up to 75% of the final score. They are also looking for some optional features that may help in other aspect and for future improvement, which are accounted for up to 25% of the final score.

#### **Essential Requirements**

Consider one of the three PHA software applications: 1) Personal Health Tracker; 2) Healthcare Assistant; and 3) Emergency Health Service. The software application will have three primary users such as End users, doctors and technical team. Core functions of each group are follows:

##### **For End users**

- End user can obtain an access code that gives access to his/her account
- End users can view the description and access of all available functionalities of the application
- End users can track their health wherever they are and whenever they want
- End users should be able to understand what their health risks are and see the specific recommendation tasks.
- End users can track progress on health status
- End users can contact emergency health service or health centre via the application

##### **For Doctors**

- Doctors can publish announcements and new/improved recommendation tasks via the application
- Doctors can view the health status of end users.
- Doctors can notify end users about any updates or irregularities in their health status.

##### **For Technical team**

- Technical team can manage all the functionalities of the application, e.g., modify or update the description of the functionalities
- Technical team can allocate functionalities of the application to doctors for improvement and update, and manually give access codes to end users to create new accounts.

#### **Desirable Features**

##### **Major Features**

##### **Personal Health Management**

- A feature should define the types and range of the functionalities that an end user can access

- A feature should define personal information not limited to such as age, gender, weight, height, blood group and genotype.
- A feature should define the diagnosis and treatment information not limited to food & nutrition, exercise period, examination results, drugs and operation.
- A feature should show available doctors, nurses, therapists, hospital and health centres.
- A feature could define medical costs and possible savings methods

#### Timetable Management

- A personalized timetable (for end users and doctors) that contains the time of taking drugs, exercise, medical visits, etc.
- Notify the users of important activities (such as drugs period and due dates, examination dates, exercise dates, medical visits dates etc.)
- Alert of time class

#### Minor Features

##### Discussion board

- End users and doctors can post and reply threads for discussion
- Technical team can provide patch up or maintenance period information

##### Finance Management

- Medical costs can be automatically calculated for any medical care or visit
- End users can get reminders and make the payment through the application

##### Online e-Health System

- End users can watch medical tips recording online
- Doctors can design online medical quiz that support health improvement for end users

***N.B: If at least one of the major features or two of the minor features are designed and implemented perfectly, you will get the rest 25% of the full stage 1 marks (35) AND 25% of the full stage 2 marks (15).***