

**Team Name: Senior Panda**

**Team Members: Justin (Zihao) Zhang, Sanmay Jain, Steve (Siyang) Wang**

## **Project Executive Summary**

### **Overview**

The application facilitates interaction among patients and doctors. It records senior patients' symptoms and reminds them to take medicine as their doctors ask at appropriate times. It also displays health information of the senior patients in a more convenient and user-friendly way so that patients may show their past medical and health records to doctors in their appointments. Moreover, this app attracts seniors patients by displaying family photos and weather information continuously throughout the day so that the patients will look at the apps frequently. Furthermore, this app will allow users to send messages to each other including family members and doctors with clean and easy-to-use tile interface. Overall, Senior Panda strives to be the go-to app for seniors users by providing cleaner and easier-to-access interface and encapsulates unnecessarily complicated and cluttered Android functionalities.

### **Purpose**

This app aims to facilitate communication among patients and doctors. The app targets senior citizen patients impacted by Parkinson's disease. There clearly exists inefficiencies in terms of how patients communicate with their doctors. Most of the patients meet with their doctors once every 3 to 4 months. Usually the doctors ask for their health information during their meetings, but the patients do not remember any details about their past symptoms. It thus becomes harder and harder to track the patients' health status and to check whether the medicine actually works. By using this app, patients can record their health information and inform their doctors consistently. Also, it makes it easier for doctors to view their patients' health information easily and drive medicine decisions accordingly.

The primary usability goals would be simplicity and "hands off" orientation. We expect users to put their devices as kitchen countertop installation. We will primarily focus on two areas. The first one is consumer content delivery. We will incorporate family photo streaming service, weather and news daily updates, and possibly other forms of entertainment for seniors. By doing so, we encourage seniors to use the app consistently. The second one is medical query delivery and response capture to populate a server side database related to medication and symptom information.

### **Functionality**

This android app is specifically designed for tablet use. The app itself will cycle through pictures on the main screen as it is meant for "tabletop" use. There will be other buttons on the bottom of the app to accomplish various other functions such as sending medical information to a database, looking up weather, and viewing news. We will work with MySQL, dream factory, and amazon web services on the

back end database. The user's doctor and loved ones will be able to upload pictures to the app. This will be done through dropbox. The user's doctor will also be able to push notifications to the app. Initially, we want to implement medical notification functionality. We envision adding functionality for further notifications from loved ones later on.

### **Technical consideration**

We choose to develop an Android app on tablets. We chose Android platform because the devices are relatively at low cost, and the platform outnumbers iOS's market share by nearly 20% in the US market. It is also far easier to deploy in the Google's app store GooglePlay, a fact very crucial to startups that targets distribution to many users fast. We chose tablets because the tablets comes with bigger screen, therefore is more suitable for senior users that we target to. The version of Android Development API that we use is API 16 (Jelly Bean), as that version is supported by 72% of the android devices worldwide. We also intend to use Amazon web services for storage of data. The client will provide Amazon developer accounts and financial support for the database and servers to be used.

### **Sketch of the GUI of your application**

Attached in the directory