Software Requirement Specification

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1 Introduction

1.1 Purpose

The purpose of this document is to compile all documentation on the Preliminary Project Phase II, or the Senior Reminder System Project. This documentation will include the requirement specifications containing the functional and nonfunctional requirements for the Project, the Program Specification containing the implementation of the project, the Process Specification and the User Manual. Having all these documentation will outline for the reader the motivations and decisions that shaped the development of this project.

1.2 Intended Audience

The main audience for this project are the ones who can function better when they follow a specific routine. The people who often forget their work time or date will especially benefit from this app. Our app will help them to remind their work time, date and place. It is also targeted towards the audience that has a habit of getting distracted by other apps and disrupting their work. At the time of work and study the app will block the games on the users game and other entertaining system. So all kind of people will be benefited by our app.

1.3 Intended Use

As a group we have decided that our two main goals are to create an app that is effortless to access and very intuitive to use. If the user cannot remember the exact workings of the app, we want it to be user-friendly and natural self-explanatory so they are still able to use it. This will be a tremendous goal because it means that the user only needs to remember they have the app and none of the details of use. Some of our lesser goals are: creating object persistence that supports useful features, giving a caregiver an easy to way to supplement the user's use of the app, and easy ways to navigate the app.

1.4 Product Scope

The project is defined by the boundaries of the selection process and our narrowing of the Project definition. Project selection was completed by meeting together and each person suggesting an idea. After discussion of the upsides and downsides of the various ideas, our team came to a unified agreement on a reminder system. Review of the project goals, deliverable, tasks to complete, their associated costs and deadlines, further narrowed our project to a precise application idea.

1.5 Risk Definition

There will not be much risk using our app. But there can be some problem if there is any bug in our app. We will try to decrease our problems. Otherwise

there will be no privacy problems while using our app. This app will ask for a lot of storage access, so there might be data risk.

2 Overall Description

2.1 User Classes and Characteristics

Our users can be students, workers or someone who requires reminders for daily functions. Characteristics of the users of this app would be:

- They are forgetful.

- They need to be prompted to be on time.

- They are easily distracted from their duties because of the apps in their phone.

- They need an outside factor to stop them from getting distracted.

- They need to be notified about how long it might take to get somewhere.

2.2 User Needs

Users of the system should be able to get notifications reminding them to set off based on the distance between the gps location of the phone and their destination, their preferred mode of transportation they provide and assumed traffic limitations of the time or day.

Users need the system to take control over certain applications to disable or draw over them for a specific period of time so that they cannot be accessed, or notify emergency contact if they are accessed after warning notification.

The system should have access to the messages the user receives and be able to parse them for keywords. The users need to be notified about the isolated information of the messages from certain contacts if the messages contain specified keywords.

The users should be able to input deadlines and time constraints and be given color-coded reminders to urge them until the work is marked as done.

The users need a network in the system that can link their routines or reminders so that they can get notified simultaneously for group projects.

The user needs to be able to customize routines around months or even years that gets triggered monthly, yearly or a specified time in between.

2.3 Operating Environment

The android application can ideally be developed on any of the following platforms:

- Windows

- OS X

- Linux

Software requirements

- Java Development Kit (JDK) 7 or later version

- Android SDK

- Android Studio

Hardware requirements

- 2 GB RAM minimum, 4 GB RAM recommended

- 400 MB hard disk space

- At least 1 GB for Android SDK, emulator system images, and caches

- 1280 x 800 minimum screen resolution

2.4 Constraints

There are a number of constraints around the execution of this system. The system needs full access over the running of different apps to be able to disable them, which could require the phone to be rooted. It requires network access and permission over almost all data on the system to function at its best. The system also needs to be provided a variety of information meticulously to be able to show dynamic notification for an event with customized policies and settings.

2.5 Assumptions

Let us assume the user will stay located in a single country and have only certain modes of transportation and certain traffic time limits. We also assume that the information about plan changes will be coming through phone messaging apps only.

3 Requirements

3.1 Functional Requirements

1. Games disable - System permission to view running processes in the system and check there is any game is already running , if running it will send notification to the users to remind the user about studies.

2. Tracking location - Database (Firebase)

3. Location and traffic reminder - Maps API provided by google and we need to send push notifications in android

4. Group project notification - Need to add other users and set reminder

5. Custom routine - Need to save database according to calendar and it will give reminder.

3.2 Non Functional Requirements

- Availability

- Reliability

- Recoverable

- Capacity

- Scalability