

# Software Requirement Specification

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# **1 Introduction**

## **1.1 Purpose**

The purpose of this document is to compile all initial documentation on the Reminder System Project. This document will describe the system and include the requirement specifications containing the functional and nonfunctional requirements for the project, the software and hardware specifications for the implementation of the project and the process specifications. Having all these documentation will outline the motivations and decisions that shaped the development of this project.

## **1.2 Intended Audience**

The main audience for this app 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. This system 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 it disrupting their work. For the specified time of work and study, the app will be designed to block the games on the users phone. So all kind of people will benefit from this application.

## **1.3 Intended Use**

The project is defined by the boundaries of the selection process and narrowing of the project definition. Project selection was completed after considering the pros and cons of different ideas. Review of the project goals, deliverable, tasks to complete, their associated costs and deadlines, further narrowed the project to a precise application idea.

This SRS outlines the basic idea for the development of this app. Further research needs to be done about plugins and libraries that might be needed while working. Future decisions about the system will be made based on the information provided in this SRS.

## **1.4 Product Scope**

The two main goals for this project are to create a simple application that is easy to access and very intuitive to use. Even if the user cannot remember the exact workings of the system, it should be user-friendly and 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 the lesser goals are: creating object persistence that supports useful features, letting a guardian oversee the user and minimizing their self-destructive habits and saving precious time.

## 1.5 Risk Definition

There might be certain risks to using this system. But they are mostly an issue if there is any bug in the system, which I will try to minimize. Otherwise, there might be some privacy leak while using the app. This app will ask for a lot of access, so there might be data risk.

## 2 Overall Description

### 2.1 User Classes and Characteristics

Primary users for this app are students who can use it to maintain their class schedule by being reminded to get ready or leave. The app can also help them to restrain themselves before exams or assignments with constant reminders or by disabling games that might waste their time. Secondary users are office workers who commutes a lot and has strict work hours. The app is also useful to anyone who needs regular 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 need to be notified about how long it might take to get somewhere.
- They tend to leave work unattended till the last minute by procrastinating.
- 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.

### 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 that 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 even after warning notifications.

\*The system should have access to the messages the user receive 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.

## 2.3 Operating Environment

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

- Windows
- OS X
- Linux

### Software requirements

- Android SDK
- Android Studio
- Visual Studio Code
- Flutter Framework

### Hardware requirements

- 2 GB RAM minimum, 4 GB RAM recommended
- 400 MB hard disk space (maximum estimate)
- 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

It is assumed the user will stay located in a single country and have only certain modes of transportation and certain traffic time limits. It is also assumed that the information about plan changes will be coming through single 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.

### **3.2 Non Functional Requirements**

- Availability - The app needs to have constant wifi or data connection to be able to work properly.
- Reliability - The app will depend on the reliability of the data provided by google API and how well it can draw over other apps.
- Performance - The performance of the app mostly depends on the information provided by the users.
- Safety - The app must be coded, tested and debugged properly. It will be able to access other applications, so it is required to eliminate any unnecessary corruption risk.
- Quality - With the features working properly as they are outlined, the quality of the app should be satisfying.
- Security - Basic security should be enough.