Software Requirements Specification

for

Memento – An Android App

Version 1.0 approved

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1. Introduction

1.1 Purpose

The purpose of this document is to describe an android application that manages user's mementos, tasks and alarms to ease the user's appointment management.

1.2 Document Conventions

This document uses the following conventions:
DB = Database

1.3 Intended Audience and Reading Suggestions

Memento is an Android App, that lets the user manage his tasks. It has been implemented under independent research, with college professor's guidance. The app is useful for appointment management.

1.4 Product Scope

The purpose of the app is to ease appointment management and to be a convenient and easy to use, managing your plans. The app is based on a DB where you can add all your appointments and you will be notified when the task deadline arrives. Above all, we hope to provide a confortable user experience, along with efficiency.

1.5 References

https://en.wikipedia.org/wiki/Android_(operating_system)
https://visualstudio.microsoft.com/xamarin/

2. Overall Description

2.1 Product Perspective

This is a new, self-contained product, designed for management of appointments.
An appointment stores the following information:

- a check box that, when checked means that the task is completed and the user doesn't need to be notified, and when it's not checked, the user will be notified when the task's deadline arrives.
- the name of the task
- description of the task
- date and time when the notification will pop up

2.2 Product Functions

There will be two activities :

- MainActivity - all current tasks will be shown and you can choose to add another
- TaskEditActivity - you will be able to fill the task's attributes.

2.3 User Classes and Characteristics

The MainActivity layout has an "ADD TASK" button, which takes the user to the TaskEditActivity, and a list of the current tasks, and two sort buttons, for priority and deadline.
Each item represents a task, and its details, such as:

- a check box that, when checked means that the task is completed and the user doesn't need to be notified, and when it's not checked, the user will be notified when the task's deadline arrives.
- the name of the task
- date and time when the notification will pop up

When the user clicks on an item, the Task Edit Activity will be opened, with all the details of the task, where the task can be edited or deleted.

The TaskEditActivity is where the user can add or edit a task. When the user enters here from the "ADD TASK" button from MainActivity, he can create a task, and when he enters here by clicking on a task from MainActivity, he can edit the selected task.
Each task has a name, a description, a date, an hour and a priority that can be edited. If the user tries to add a task with an already used name, all the attributes of that task will be overridden and a new task will not be added.

When a task's deadline arrives, the user will get a notification with the name and description of the task. The notification will recall each minute untill the task is marked as completed.
The user can click any notification and the MainActivity will be opened. Furthermore, in the background runs a service so, even if the app is closed, the notification will still pop up on time.

2.4 Design and Implementation Constraints

Operating environment for the airline management system is as listed below.

- Operating system: Android(based on Linux).
- database: sql+ database
- Android 8.0 Oreo or above (we will try to lower the version to 4.2 Jelly Bean)

2.5 Assumptions and Dependencies

We assume that the user has the Android 8.0 or above, and the newer versions will support the same features as 8.0.

3. External Interface Requirements

3.1 User Interfaces

-Front-end software: C# and Xamarin (For the future possibility of porting the app to IOS)
-Back-end software: SQL+

3.2 Hardware Interfaces

-Smartphone that supports Android 8.0. or above.

3.3 Software Interfaces

Operating system - We have chosen Android for its support, customisability and user-friendliness.
Database - To easily save and store the task's attributes and deadline.
Android 8.0 (Oreo) or higher.

4. Other Nonfunctional Requirements

4.1 Performance Requirements

Any smartphone with Android 8.0 or higher will be able to use the app.

4.2 Software Quality Attributes

Possibility of sorting tasks by priority or date.
The software services will be available even after phone restart.
Services will be 100% reliable, so you'll never miss your appointments.