Software Requirements Specification

for

Smart Student Attendance System

Version 1.0 approved

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Revision History

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| --- | --- | --- | --- |
| **Name** | **Date** | **Reason For Changes** | **Version** |
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# Introduction

## Purpose

<Identify the product whose software requirements are specified in this document, including the revision or release number. Describe the scope of the product that is covered by this SRS, particularly if this SRS describes only part of the system or a single subsystem.>

The purpose for this SRS is to make documentation for the Smart Student Attendance System v1.0 that is going to be developed over the next several months. The purpose of this software is to help teachers record student’s attendance online and this software will be developed to be a mobile application.

## Document Conventions

<Describe any standards or typographical conventions that were followed when writing this SRS, such as fonts or highlighting that have special significance. For example, state whether priorities for higher-level requirements are assumed to be inherited by detailed requirements, or whether every requirement statement is to have its own priority.>

This document is written by the order of importance of the requirements, the most important requirements are on the top with **Bold** titles and specific names are written in *Italic.*

## Intended Audience and Reading Suggestions

<Describe the different types of reader that the document is intended for, such as developers, project managers, marketing staff, users, testers, and documentation writers. Describe what the rest of this SRS contains and how it is organized. Suggest a sequence for reading the document, beginning with the overview sections and proceeding through the sections that are most pertinent to each reader type.>

This document is for the **team members** such as project manager, developers and tester, also it serves as a record for requirements from the **client** (Professor) and a standard guide for **future maintenance**.

This document contains mostly functional and non-functional requirements for the development process and the team members and also users should read it thoroughly to gain a comprehensive understanding what this software is used for and what kind of functions can it achieve.

## Product Scope

<Provide a short description of the software being specified and its purpose, including relevant benefits, objectives, and goals. Relate the software to corporate goals or business strategies. If a separate vision and scope document is available, refer to it rather than duplicating its contents here.>

Smart Student Attendance System is a ***mobile software*** mainly for teachers. Its main purpose is to help teachers record the attendance of students. By using this software, teachers can save time and energy wasted on paper-based recording so that they can focus more on the class. This software can also provide **graphic view** and **basic data analysis** function to help teachers manage the class better and give fair grades based on student’s behavior. This software is mainly targeted towards **professors** in the universities and **teachers** in schools so it has a large pool of potential users.

## References

<List any other documents or Web addresses to which this SRS refers. These may include user interface style guides, contracts, standards, system requirements specifications, use case documents, or a vision and scope document. Provide enough information so that the reader could access a copy of each reference, including title, author, version number, date, and source or location.>

During writing this assignment, I did not copy any information from websites or other recourse, I want to make a software requirement specification based on my own words. I know this document is far from perfect but if I copy from other places, these requirements may not be what I truly want to develop and I may end up with a software that does not meet my needs. So by writing on my own, I made a document that holds the same idea with my heart.

# Overall Description

## Product Users

<Describe which users are going to be using the system.>

Professors and teachers

## Operating Environment

<Describe the environment in which the software will operate, including the hardware platform, operating system and versions, and any other software components or applications with which it must peacefully coexist.>

This software is available for any Android smartphone with Android 9 or newer, and it does not require certain applications to run.

## Assumptions and Dependencies

<List any assumed factors (as opposed to known facts) that could affect the requirements stated in the SRS. These could include third-party or commercial components that you plan to use, issues around the development or operating environment, or constraints. The project could be affected if these assumptions are incorrect, are not shared, or change. Also identify any dependencies the project has on external factors, such as software components that you intend to reuse from another project, unless they are already documented elsewhere (for example, in the vision and scope document or the project plan).>

Factors that may affect the requirements:

1.The **privacy policy** in certain university or school

2.The expected size of class

3.The **security level** needed by certain professor or teacher

4.The **authorization process** for users who change their devices frequently

5.The maximum length of time to keep the data and attendance history

Dependent external factors:

1.**Database language and kit** for developing the database

2.Already-exist materials for developing **UI**

3.**API** from Canvas, Google or other software to provide authorization function and cloud-based storage

# Functional Requirements

<Itemize the detailed functional requirements associated with features of the software system. These are the software capabilities that must be present in order for the user to carry out the services provided by the features, or to execute the use case. Include how the product should respond to anticipated error conditions or invalid inputs. Requirements should be concise, complete, unambiguous, verifiable, and necessary. Use “TBD” as a placeholder to indicate when necessary information is not yet available.>

<Each requirement should be uniquely identified with a sequence number or a meaningful tag of some kind.>

1.Teachers must be able to log in with an account

2.Teachers must be able to add or remove records

3.Teachers must be able to see the graphic view and have access to the history

4.Teachers must be able to download the data to storage devices

5.SSAS must store the data on the server so that any authorized device can link to the data

6.SSAS must prevent unauthorized access

7.SSAS must be able to analysis data and give correct output

8.SSAS must be able to send alert to teacher when certain student is absent for too many classes

9.Student must be able to have access to their own data, whether by email or by text message

10.Parents must be able to have weekly or monthly feedback from the SSAS

# Nonfunctional Requirements

<Itemize the detailed non-functional requirements associated with the software system. Such as performance, safety, security requirements and business rules and Software Quality Attributes. Requirements should be concise, complete, unambiguous, verifiable, and necessary. Use “TBD” as a placeholder to indicate when necessary information is not yet available.>

<Each requirement should be uniquely identified with a sequence number or a meaningful tag of some kind.>

1.Teachers can change their profile pictures of their account

2.Teachers can change the color of the graphic views

3.Students can use SSAS to generate a link to invite friends

4.SSAS can have advertisements targeted towards teachers and students

5.SSAS can sell premium accounts to universities and schools

# Other Requirements

<Define any other requirements not covered elsewhere in the SRS. This might include database requirements, internationalization requirements, legal requirements, reuse objectives for the project, and so on. Add any new sections that are pertinent to the project.>

1.SSAS needs a database to store data

2.SSAS needs an user terms and conditions