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# 1. Introduction

The introduction to the Software Requirement Specification (SRS) document should provide an overview of the complete SRS document. While writing this document please remember that this document should contain all of the information needed by a software engineer to adequately design and implement the software product described by the requirements listed in this document. (Note: the following subsection annotates are largely taken from the IEEE Guide to SRS).

## 1.1 Purpose

*What is the purpose of this SRS and the (intended) audience for which it is written.*

## 1.2 Scope

*This subsection should:*

*(1) Identify the software product(s) to be produced by name; for example, Host DBMS, Report Generator, etc*

*(2) Explain what the software product(s) will, and, if necessary, will not do*

*(3) Describe the application of the software being specified. As a portion of this, it should:*

*(a) Describe all relevant benefits, objectives, and goals as precisely as possible. For example, to say that one goal is to provide effective reporting capabilities is not as good as saying parameter-driven, user-definable reports with a 2 h turnaround and on-line entry of user parameters.*

*(b) Be consistent with similar statements in higher-level specifications (for example, the System Requirement Specification) , if they exist.What is the scope of this software product.*

## 1.3 Definitions, Acronyms, and Abbreviations

*This subsection should provide the definitions of all terms, acronyms, and abbreviations required to properly interpret the SRS. This information may be provided by reference to one or more appendixes in the SRS or by reference to other documents.*

## 1.4 References

*This subsection should:*

*(1) Provide a complete list of all documents referenced elsewhere in the SRS, or in a separate, specified document.*

*(2) Identify each document by title, report number - if applicable - date, and publishing organization.*

*(3) Specify the sources from which the references can be obtained.*

*This information may be provided by reference to an appendix or to another document.*

## 1.5 Overview

*This subsection should:*

*(1) Describe what the rest of the SRS contains*

*(2) Explain how the SRS is organized.*

# 2. General Description

The Student Attendance Tracking System (SATS) has many affecting factors that will make it hard to implement. One of the factors is how and where to store students and professors information for the system to use and do its functions. Another factor is the scanning device that will be used to scan students badges and sending the information to the main class computer to mark attendance. And the system interface that will store and display the attended and absent students. The system has constraints on the students information, so every badge scanned the system will validate these constraints from the information received on by the scanning device.

## 2.1 Product Perspective

## The Students Attendance Tracking System (SATS) is a System. The system is linked to the scanning device, the database, the Excel file, and the software used by professors. The system provides a secure environment for all information of students and for storing and retrieving the information, it’s a faster way to attend the students, and saving lecture time.

Excel

Database

Scanning Device

## 2.2 Product Functions

The Students Attendance Tracking System (SATS) will allow professors to take attends in the class fast and effectively. After the professor start the system it will allow students to scan their badges using the scanning device. The system will retrieve information from scanning device and compare it with the database. The system will know if student is assigned in the course. The system will attend students and record their time of scan and mark them late if they are late and store it in the Excel file. The Excel file will be organizing in specific format to make sure it's clear for the professor to check it when needed. The system will stop taken attends when the professor issues stop command.

## 2.3 User Characteristics

The main users of Student Attendance Tracking System (SATS) are the professors and students. The professors are the ones who will run the system, so that students can scan their badges to mark their attendance, the amount of product training needed for the professors and students are none, because the main idea of the product is to make it fast and easy for both the professors and students to take attendance every class.

## 2.4 General Constraints

The system provides access for professors to implement the scanning process for students to scan their badges. The user interface will be intuitive enough so that no training is required. All the information of students will be added by the professors in the database in the beginning of the semester. The database only allows to take student names and IDs and will allow to use characters and numbers only.

## 2.5 Assumptions and Dependencies

One assumption about the product is that it will always be used on the main class computer that is connected to the scanning device. If the professor wants to take the attendance on his personal device he will need to install the product and connect the scanning device, but the problem is the type of data base that has all the students information which is necessary to the product is SQL which will run on the main class computer. Another assumption is that the system will always save the attendance on the same excel file deleting it or changing it may cause problems.

# 3. Specific Requirements

This will be the largest and most important section of the SRS. The customer requirements will be embodied within Section 2, but this section will give the D-requirements that are used to guide the project’s software design, implementation, and testing.

Each requirement in this section should be:

* Correct
* Traceable (both forward and backward to prior/future artifacts)
* Unambiguous
* Verifiable (i.e., testable)
* Prioritized (with respect to importance and/or stability)
* Complete
* Consistent
* Uniquely identifiable (usually via numbering like 3.4.5.6)

Attention should be paid to the carefuly organize the requirements presented in this section so that they may easily accessed and understood. Furthermore, this SRS is not the software design document, therefore one should avoid the tendency to over-constrain (and therefore design) the software project within this SRS.

## 3.1 External Interface Requirements

### 3.1.1 User Interfaces

### 3.1.2 Hardware Interfaces

### 3.1.3 Software Interfaces

## 3.2 Functional Requirements

This section describes specific features of the software project. If desired, some requirements may be specified in the use-case format and listed in the Use Cases Section.

### 3.2.1 <Functional Requirement or Feature #1>

3.2.1.1 Introduction

3.2.1.2 Inputs

3.2.1.3 Processing

3.2.1.4 Outputs

3.2.1.5 Error Handling

### 3.2.2 <Functional Requirement or Feature #2>

…

## 3.3 Non-Functional Requirements

Non-functional requirements may exist for the following attributes. Often these requirements must be achieved at a system-wide level rather than at a unit level. State the requirements in the following sections in measurable terms (e.g., 95% of transaction shall be processed in less than a second, system downtime may not exceed 1 minute per day, > 30 day MTBF value, etc).

# 5. Team Members Contributions

*Identify and describe each team member contributions. Hint: use table for clarify team members’ roles and activities or tasks assigned to, and contributions.*

# 6. Conclusion

*Summary of this SRS documents. What has been achieved and what is left, and some future work.*