



BHARATIYA VIDYA BHAVAN'S  
**SARDAR PATEL INSTITUTE OF TECHNOLOGY**  
MUNSHI NAGAR, ANDHERI (WEST), MUMBAI - 400 058.  
(Autonomous College Affiliated to University of Mumbai)  
**MASTER OF COMPUTER APPLICATIONS**

**Class: F.Y.MCA**      **Semester: I AY2425**      Subject: Software Engineering Lab

**Subject In charge: Nikhita Mangaonkar**      **Course Code: MC503**

**ROLL NO. : 2024510001**

**BATCH: A**

**NAME: Atharva Vasant Angre**

**EXPERIMENT NO: 02**

**EXPERIMENT TITLE: To Check Feasibility Study & Prepare SRS.**

**Objective:**

1. To define a scenario.
2. To check feasibility study with different types
3. To define definitions and abbreviation used in the project
4. To analyze software and hardware interfaces
5. To list and correlate functional and nonfunctional requirement and other requirement

## **Software Requirements Specification Document**

For Attendance Management Software

### **1. Introduction**

#### 1.1. Purpose

This project aims to address the shortcomings of both traditional and modern attendance systems.

By implementing advanced technology, the system will provide greater visibility for both students

and institutions, ensuring a smoother and more efficient attendance management process.

#### 1.2. Scope

The project focuses on developing an advanced attendance management system that leverages modern technology to streamline the attendance process. It will eliminate manual errors, reduce proxy attendance, and provide real-time attendance tracking for both students and institutions. The system will also offer transparent reporting, ensuring that students have continuous access to their attendance status, thereby preventing issues related to defaulter lists.

### 1.3 Definitions, Acronyms, Abbreviations

DFD – Data Flow Diagram

IEEE – Institute of Electrical and Electronics Engineers

### 1.4. Document Overview

This document contains the functional and non-functional requirements of the system and the Data Flow Diagram (DFD) of the system in the following pages.

### 1.5. References

IEEE standard -830-1998 ,Pankaj Jalote Software Engineering book.

### 1.6. Intended Audience

This document will be used for design purposes by the developers and the design team. It will be the basis for validating the final delivered system.

### 1.7. SRS team members

This document is written by Atharva Vasant Angre(2024510001).

## **2. Functional Requirements**

### 2.1. Register Student

#### Input:

- Student Id, Student name, Student address, phone number, Date of joining, Course, Year.

#### Output:

- Confirmation of successful registration.
- Student data is stored in the student database.

#### Description:

- The system verifies that the student's details are valid and not already registered.
- Only unique student records are added to the database.
- If all details are correct, the student is successfully registered and granted access to the attendance system.

### 2.2. Delete the Students Record

Input:

- Student Id, Student name, Student address, phone number, Date of joining, Course, Year.

Output:

- Confirmation of successful Deletion.
- Student data is removed from the student database.

Description:

- The system verifies that the student's details are valid or not.
- Alert messages will be shown that the selected students' records will be deleted.
- Removes the record from the Database.

## 2.2. Update the Students Record

Input:

- Student Id, Student name, Student address, phone number, Date of joining, Course, Year.

Output:

- Confirmation of successful Updation.
- Student data is Updated in the student database.

Description:

- The system verifies that the student's details are valid or not.
- Alert messages will be shown that the selected students' records will be updated.
- Updates the record in the Database.

## 2.3. Generate the defaulter's List

Input:

- Select the Course and the Class .

Output:

- The defaulters list will be generated for the selected Course and Class.

Description:

- The system verifies that the entered Course and Class is valid or not.
- Alert messages will be shown that the selected Course and Class are not present and if present the soft release of the list will be generated.

## 2.4. View the defaulter's List

Input:

- Select the Course and the Class .

Output:

- The defaulters list will be shown for the selected Course and Class.

Description:

- The system verifies that the entered Course and Class is valid or not.
- Alert messages will be shown that the selected Course and Class are not present and if present the soft release of the list will be generated.
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## 2.5. View overall Attendance.

Input:

- Select the Course, Class.

Output:

- The Attendance list will be shown for the selected Course and Class,.

Description:

- The system verifies that the entered Course and Class is valid or not.
- Alert messages will be shown that the selected Course and Class are not present and if present the Attendance List will be shown.

## 2.6. View a specific Student's Attendance.

Input:

- Select the Course, Class, Student Id.

Output:

- The Attendance list will be shown for the selected Course, Class, Student Id.

Description:

- The system verifies that the entered Course, Class, Student Id is valid or not.
- Alert messages will be shown that the selected Course, Class, Student Id are not present and if present the Attendance List for the student will be shown.

## 2.7. View Subject wise Attendance.

Input:

- Select the Course, Class, Subject.

Output:

- The Attendance list will be shown for the selected Course, Class, Subject.

Description:

- The system verifies that the entered Course, Class, Subject is valid or not.
- Alert messages will be shown that the selected Course, Class, Subject are not present and if present the Subject wise Attendance List for the student will be shown.

2.8. Reset its Login Password.

Input:

- Enter the Student Id, Student phone no., email, Password.

Output:

- The Password against the Student Id, Student phone no., email, entered.

Description:

- The system verifies that the entered Student Id, Student phone no., email is valid or not.
- Alert messages will be shown that the Entered Student Id, Student phone no., email are not present and if present the Password will be resetted.

2.9. Raise a Complaint ticket.

Input:

- Enter the Student Id, enter the subject and the complaint.

Output:

- The complaint raised will be forwarded to the office staff and will be verified.

Description:

- The office staff verifies complaint raised.
- If the complaint is valid then the resolution will be done if not then “complaint rejected” will be shown to the student.

2.10. Publish the Defaulters List.

Input:

- .

Output:

- The complaint raised will be forwarded to the office staff and will be verified.

Description:

- The office staff verifies complaint raised.
- If the complaint is valid then the resolution will be done if not then “complaint rejected” will be shown to the student.

### 3. External interface Requirements

#### 3.1. User Interfaces

This software needs the following user interfaces:

##### i) Student Registration Window

User: Admin

Properties:

- This window is used for entering student details to register a new student into the attendance system.
- It has fields for Student ID, Name, Address, Phone Number, Date of Joining, Course, and Year.
- A "Register" button is provided, and upon successful entry, the system stores the data and confirms registration.

##### ii) Delete Student Record Window

User: Admin

Properties:

- This window is used for deleting an existing student's record from the system.
- It has fields for Student ID, Name, Address, Phone Number, Date of Joining, Course, and Year.
- A "Delete" button triggers the deletion process, showing an alert for confirmation before removing the student's record.

##### iii) Update Student Record Window

User: Admin

Properties:

- This window is used for updating an existing student's details.
- It displays fields for Student ID, Name, Address, Phone Number, Date of Joining, Course, and Year.
- An "Update" button allows modifying the student's data, with a confirmation alert shown after the update is complete.

##### iv) Generate Defaulters List Window

User: Admin

Properties:

- This window is used for generating a defaulter's list based on course and class selection.
- Dropdown menus are provided to select Course and Class.
- A "Generate" button displays the list, confirming that the input is valid, or providing alerts if there are issues with the input.

v) View Defaulters List Window

User: Admin, teaching staff, student

Properties:

- This window is used to view the defaulter's list for a specific Course and Class.
- Dropdowns for selecting Course and Class are provided, and the list is displayed once valid inputs are selected.
- Alerts are shown if the inputs are invalid or not found in the system.

vi) View Overall Attendance Window

User:Admin, teaching staff, student

Properties:

- This window allows viewing the overall attendance for a specific course and class.
- Dropdown menus for Course and Class are provided, and the system shows the attendance details upon valid selection.

vii) View Specific Student's Attendance Window

User:Admin, teaching staff,

Properties:

- This window is used for viewing a specific student's attendance based on Course, Class, and Student ID.
- Dropdowns for Course and Class, and a field for Student ID are available. The system displays the student's attendance upon valid input.

viii) View Subject-wise Attendance Window

User: Admin, teaching staff, student

Properties:

- This window displays attendance based on a specific subject.
- Fields to select Course, Class, and Subject are provided.
- Upon valid input, the subject-wise attendance is displayed, or an alert is shown if details are invalid.

ix) Reset Login Password Window

User: student

Properties:

- This window allows the student to reset their login password.
- It contains fields for Student ID, Phone Number, Email, and the new Password.
- A "Reset Password" button triggers the process, and confirmation is shown upon successful password reset.

#### x) Raise Complaint Ticket Window

User: student

Properties:

- This window allows the student to raise a complaint.
- It has fields for Student ID, a subject of the complaint, and the details.
- A "Submit" button forwards the complaint to office staff, who will verify and either resolve or reject it.

#### xi) Publish Defaulters List Window

User: Office Staff

Properties:

- This window allows Office Staff to publish the defaulters list.
- A "Publish" button triggers the process after verification, allowing the list to be forwarded to all the students.

### 3.2. Software Interfaces

The software runs on Android and IOS operating systems. This software uses one databases for Student Attendance.

### 3.3. Hardware Interfaces

The system will run on a mobile platform with at least 4GB RAM and with internet connection.

### 3.4. Communication Interfaces

The software will use HTTP protocol to transfer data and receive data using APIs.

## 4. Other Non-functional Requirements

### 4.1 Performance

In every case the response time will be less than 1 second except for the cases where the attendance data is fetched.

### 4.2 Security

It allows students to easily view their attendance, while only authorized staff can manage the data, reducing errors and preventing issues like proxy attendance.