

Table of Contents		Page
1	TEST PLAN IDENTIFIER.....	2
2	REFERENCES.....	2
3	INTRODUCTION.....	2
4	TEST ITEMS.....	2
5	SOFTWARE RISK ISSUES.....	2
6	FEATURES TO BE TESTED.....	3
7	FEATURES NOT TO BE TESTED.....	3
8	APPROACH (STRATEGY).....	3
	1. Testing Levels:.....	3
	2. Testing Tools.....	3
9	ITEM PASS/FAIL CRITERIA.....	4
10	SUSPENSION CRITERIA AND RESUMPTION REQUIREMENTS.....	4
11	TEST DELIVERABLES.....	4
12	REMAINING TEST TASKS.....	4
13	ENVIRONMENTAL NEEDS.....	4
14	PLANNING RISKS AND CONTINGENCIES.....	4

## AA TEST PLAN

### 1 TEST PLAN IDENTIFIER

AA\_1.0

### 2 REFERENCES

SRS document for Attendance Application

### 3 INTRODUCTION

This document presents the test plan for the Attendance Application, as specified in the SRS. It includes all the possible tests required to ensure the correctness and reliability of the software to be implemented. The software should pass all the tests before it can be delivered.

The project will have two levels of testing: Unit and Application testing. The details of those described above are elaborated in the future sections

### 4 TEST ITEMS

The following is the list of the items to be tested:

1. Student
  - a. Give Attendance
  - b. View Attendance
2. Teacher
  - a. Take Attendance
  - b. Get Proxies
  - c. View Attendance
3. Admin
  - a. Add Course
  - b. Edit Course
  - c. Delete Course

### 5 SOFTWARE RISK ISSUES

1. The Database should be kept safe. If any other external agent outside the Institute modifies the Database or deletes it, this would be dangerous because all the data will be corrupted. Hence the software may not function as expected.
2. Login authentication must be verified, and the password should not be leaked.

## 6 FEATURES TO BE TESTED

The following features are to be tested:

1. (H) Successfully giving attendance by Student.
2. (H) Successfully recording attendance by the Teacher.
3. (H) Viewing attendance record in any course by a Student.
4. (H) Viewing attendance record in any course by a Teacher.
5. (M) Teacher getting the possible proxies in attendance.
6. (M) Adding a course by the Admin.
7. (M) Editing any existing course by the Admin.
8. (M) Deleting any course by the Admin.

## 7 FEATURES NOT TO BE TESTED

Features not to be tested are:

1. Network access and security
2. Efficiency and reliability of hosting server
3. Functions of the Database like SELECT, and QUERYing elements in SQLite

## 8 APPROACH (STRATEGY)

### 1. Testing Levels:

The following testing levels are present:

- Unit Level
- System Level (Application Testing)

*Unit Testing:* Each of the functions as per Section 4 is to be tested

*Application Testing (Scenarios to be tested):*

- Student: Login of Student → {Use Attendances of Student (Section 4)} → Logout  
Additional Notes
- Check if the Student is giving attendance correctly
- Teacher: Login of Teacher → Login to a particular course → {Use Attendances of Teacher (Section 4)} → Logout

*Additional Notes:*

- Check for attendance proxies
- Admin: Login of Admin → {All use courses of Admin (Section4)} → Logout of Admin

### 2. Testing Tools

The testing tools used are:

1. C++ and SQLite3 Server: Test cases for backend will be run
2. Manual Testing: Manual testing for frontend

## 9 ITEM PASS/FAIL CRITERIA

The completion criteria for the plan are:

1. At Unit Level:
  - a. All Unit Tests Passes
2. At the System Level:
  - a. All Application Tests Passed

## 10 SUSPENSION CRITERIA AND RESUMPTION REQUIREMENTS

- **Suspension**

The testing shall be suspended if one (or more) of the following conditions happen:

1. Magic Code generated is not random
2. Attendance is not registered for students
3. Students can give attendance for lectures even after attendance is stopped.
4. Statistics displayed to teachers and students are flawed
5. Proxied can't be identified

- **Resumption**

The testing shall be resumed if the above flaws are resolved and retested to be working as expected.

## 11 TEST DELIVERABLES

As a part of this test plan, the following are delivered:

1. Unit Test Plan
2. Application Test Plan
3. Test Suite (with test cases and outputs)

## 12 REMAINING TEST TASKS

Testing if the courses can be correctly created/edited/deleted by the Admin.

## 13 ENVIRONMENTAL NEEDS

1. SQLite3 server must be present for testing.
2. Test Data to be provided from the Database for backend testing and as manual inputs for User Interface testing

## 14 PLANNING RISKS AND CONTINGENCIES

1. Suppose any feature is not passing the tests even after significant effort. In that case, it could be dropped if it is not a major feature or, in particular, hamper the other features' functioning.
2. If the original requirements change, the development team must be given sufficient time to implement the new changes. The amount of time allocated depends on how drastic the changes are. The testing team then needs to test the features again. However, such changes are discouraged, as they can negatively affect the team's morale.