ISOE Software Engineering Course, IIIT Allahabad

Software Requirements Specification

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This document gives a detailed requirement specification for a University Attendance Management and Report Generation Portal.

Contents

1. Introduction

1.1 Purpose

To develop a fully functional and user interactive online tool which can enhance and help various attendance management users to manage their attendance efficiently and productively. The focus here is the IIIT Allahabad educational needs.

1.2 Scope

- ➢ Create different users with varied roles and scopes.
- ➢ Members can login to the system by providing valid id.
- ➢ Register students to courses (Admin)
- ➢ Add new staff details (Admin)
- ➢ Add attendance details (Staff)
- ➢ Fetch details of a particular student (Staff)
- ➢ Keep track of number of classes (Staff)
- ➢ Editing and Updating attendance details in case of leave (Staff).
- ➢ Students can check details of their attendance (Student)
- ➢ Generate subject-wise attendance report (Staff).
- ➢ Generate list of students eligible for exams.

1.3 Definitions, Acronyms and Abbreviations

AMS - Attendance Management System

Admin – Administrator.

Prof. - Professor

HTML – Hypertext Markup Language.

XHTML – extensible Hypertext Markup Language.

HTTP – Hypertext Transfer Protocol**.**

JS - Javascript

Doc – document.

1.4 References

IEEE SRS Format.

TGMC-2008 Sample Synopsis Format.

Problem Definition Provided By TGMC-2008

www.iisjaipur.org/iiim-current-08

1.5 Technologies to be used

- ➢ phpMyAdmin
- ➢ MySQL
- ➢ PHP | HTML | CSS | JS | Bootstrap
- ➢ Xampp web server

1.6 Overview

This is a working document and, as such, is subject to change. In its initial form, it is incomplete by definition, and will require continuing refinement. Requirements may be modified and additional requirements may be added as development progresses and the system description becomes more refined.This project is a tool to help in managing Attendance of Students in University and Colleges. It will be fully functional to mark and update attendance of students as done by Prof.It will be able to complete report consisting attendance records of each and every student.

2. Overall Description

2.1 Use-Case Model Survey

1. **Administrator**: - is responsible for registering new Student, Prof. and introducing new Subject as well as assigning subjects Prof.
    a. **Add new Student** :- Assign Username and Password to every student.
    b. **Add new Prof** :- Assign Username and Password to every Prof.

c. **Add new Subject and assign a Prof to it**.
d. **View Attendance** :- To Decide which student should sit in exam.

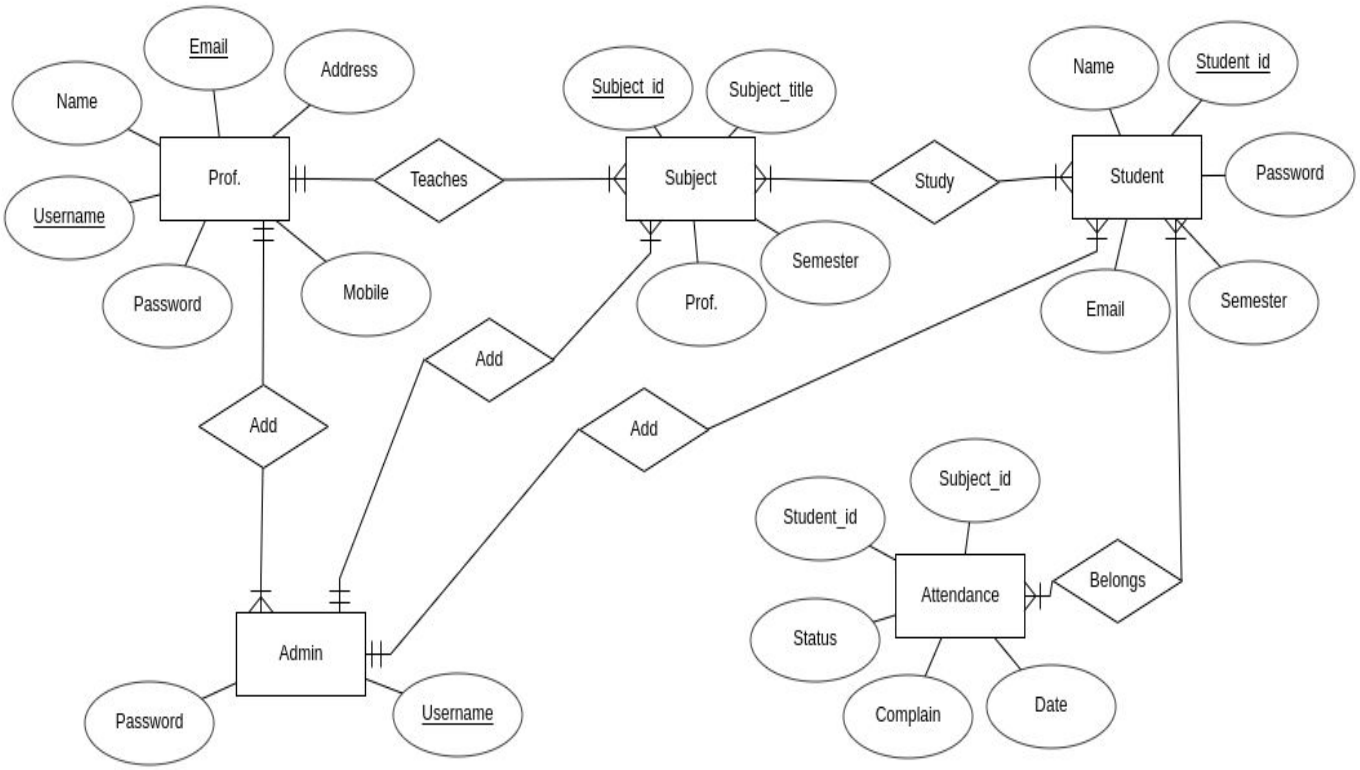
2. Professor :- is responsible for managing attendance.

a. Add attendance and Modify Attendance.
b. View Attendance anytime.
c. Manage leave applications provided by student.
d. Manage Complain of students(if any).

3. Student:- can check its attendance as well as submit complain.

a. Can check attendance as updated by Prof.
b. Check attendance according to subject or date or by both.
c. Can submit any kind of complain regarding attendance.

2.2 E-R Diagram



2.3 Data-Dictionary

All Tables used in Project:-

- Prof. Table
- Attendance Table
- Student Table
- Subject Table
- Admin Table

Prof. Table

Name	Data type	Length	Nullable
Username	VARCHAR	50	No
Password	VARCHAR	50	No
Name	VARCHAR	50	No
Email	VARCHAR	50	No
Address	VARCHAR	225	No
Mobile	VARCHAR	20	No

Key	Columns
Primary Key	Username

Attendance Table

Name	Data type	Length	Nullable
Student_id	VARCHAR	50	No
Subject_id	VARCHAR	50	No
Date	DATE	--	No
Status	TINYINT	1	No
Complain	VARCHAR	225	Yes

Key	Columns
Primary Key	Student_id,Subject_id,Date
Foreign Key	Student_id
Foreign Key	Subject_id

Subject Table

Name	Data type	Length	Nullable
Subject_id	VARCHAR	50	No
Subject_title	VARCHAR	50	No
Prof.	VARCHAR	50	No
Semester	INTEGER	2	No

Key	Columns
Primary Key	Subject_id

Student Table

Name	Data type	Length	Nullable
Student_id	VARCHAR	50	No
Password	VARCHAR	50	No
Name	VARCHAR	50	No
Email	VARCHAR	50	No
Semester	INTEGER	2	No

Key	Columns
Primary Key	Student_id

Admin Table

Name	Data type	Length	Nullable
Username	VARCHAR	50	No
Password	VARCHAR	50	No

Key	Columns
Primary Key	Username

2.4 Assumption and Dependencies

- ➢ Every Subject will be taught by only one Prof.
- ➢ Every Subject will have its fixed semester.
- ➢ At the time of adding new subject, admin will have to assign its Prof.

3. Specific Requirements

3.1 Use-Case Reports

1. **Administrator**: - is responsible for registering new Student, Prof. and introducing new Subject as well as assigning subjects Prof.

a. **Add new Student** :- Assign Username and Password to every student.
b. **Add new Prof** :- Assign Username and Password to every Prof.
c. **Add new Subject and assign a Prof to it**.
d. **View Attendance** :- To Decide which student should sit in exam.

Precondition :- Admin should be Logged in into the system.
Normal Flow of Events –

1. The Admin then has options to add new Students as well as Professors.
2. Admin can also add new courses into the college curriculum.

3. He can generate report of Student's Attendances.

2. Professor :- The Prof. is responsible for managing Attendance details of the students.

a. Add attendance and Modify Attendance.
b. View Attendance anytime.
c. Manage leave applications provided by student.
d. Manage Complain of students(if any).

Precondition :- Prof. should be logged in into the system.

Normal Flow of Events –

1. After logging in Prof. can goto one of his assigned courses and select a date to View or Add (Update) Attendance of that particular day.
2. He/She can check if there are any complains by any student, say that some student was present but somehow, by manual error, marked absent.
3. Those complaints can be resolved.
4. A report can be generated to check the students who are having attendance less than some threshold percentage.
5. In case of any leave applications, The Prof. can manage that case simply by updating that particular attendance.

3. Student:- can check its attendance as well as submit complain.

a. Can check attendance as updated by Prof.
b. Check attendance according to subject or date or by both.
c. Can submit any kind of complain regarding attendance.

Precondition :- The verified student should be logged in to the system.

Normal Flow of Events –

1. After logging in the Student can view his attendance details.
2. He can lodge a complaint if he finds some error in his attendance details.

3.2 Supplementary Requirements

- Since this a tool which can be used from any College or University and anytime in the world, so the server should be well managed for such kind of requirement.
- To use the application in the best possible way please read the tips displayed while using the tool.