Software Requirements Specification

for

SCHOOL MANAGEMENT SYSTEM

Version 1.0.1

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Table of Contents

1. Introduction:

1.1. Purpose:

The aim of this School Management System project is to automate school digitalization process of students and management of online fee payment,admission system,teachers ,students and staff management for the school. It has a very user-friendly interface which enables the user to easily make use of it. The purpose of this document is to present a detailed description of the school management system. It will explain the purpose and features of the system, the interfaces of the system, what the system will do, the constraints under which it must operate and how the system will react to external stimuli. This document is intended for both the students and the authorities of the school and will be liable for the approval or disapproval of the project by the authority of the school.

1.2. Scope:

School management system is designed to help the students to view his/her attendance, result, and official notice and other activities.We know that the teachers can view profile of other teachers, employees and all students.Teacher can upload his/her subject attendance if any students absent the class, teacher will send the absent sms notice to parents.Teachers can upload his/her class test or subject marks and post the assignment in classroom and assign assignment to students.
The students can view the class schedule of other teachers.

1.3. Definitions and Abbreviations:

Following are the definitions for the technical words.

TERMS	DEFINITION
User	A person who needs the system to do his task efficiently and effectively.For example: Teachers , Students and Staff..
SQL Server	Structure query language for the database purposes.Used to define procedures to store and fetch data.
SRS	A document that completely describes all of the functions of a proposed system and the constraints under which it must operate. For example, this document.
Database	Collection of all the information monitored by this system.

1.4. References:

This web application has been prepared on the basis of discussion with Team members, school authority and also taken information from following books & website.

1.4.1. Websites:

1.4.1.1. www.w3schools.com

1.4.1.2. www.stackoverflow.com

1.4.1.3.www.google.com

1.4.2. Books:

1.4.2.1. Software Engineering : A practitioner's approach Ed. By Pressman, Roger.

2. General Description

2.1 Product Perspective:

2.1 Product Perspective:

The various system tools that have been used in developing both the front end,
The back end and other tools of the project are being discussed in this section.

FRONT END:
HTML, CSS, JAVA SCRIPTS,React Js are utilized to implement the frontend.

HTML (Hyper-TextMark up Language):
HTML is a syntax used to format a text document on the web.
CSS (Cascading Style Sheets):

CSS is a style sheet language used for describing the look and formatting of a document written in a mark-up language.

Java Script:
JS is a dynamic computer programming language. It is most commonly used as part of web browsers, whose implementations allow client-side scripts to interact with the user, control the browser,communicate asynchronously, and alter the document content that is displayed.

BACK END:
The back end is implemented using MYSQL which is used to design the databases.

MYSQL:
MySQL is the world's second most widely used open source relational database management system (RDMS). The SQL phrase stands for structured query.

PHP:
PHP is a server side scripting language designed for web development but also used as a general purpose programming language. PHP code is interpreted by a web server with a PHP processor module, which generates the resulting web page: PHP commands can be embedded directly into an HTML source document rather than calling an external file to process data

2.2 Product Features :

The primary function of the School Management System web server is essentially to save the whole system information sequentially into a database server. The administration department will have access to the whole system environment and that can be modified as per their needs.The architecture of the whole system is made easy so that any person can login to the system and use the functions. The system database is only accessible to admin and admin can only modify the changes.

2.3 User Classes and Characteristics:

Students: They are the people who are studying in the school.

Teacher: They are persons who teach a different subject
Admin/Principal: He/They is/are the person who handle all over management of the school.

2.4 Operating Environment

PHP,Java , JavaScript compatible browser:

- Mozilla Firefox
- IE
- Opera
- Chrome
- Safari

User Operating Systems:

- Windows
- MAC
- Linux
- Android
- I-phone

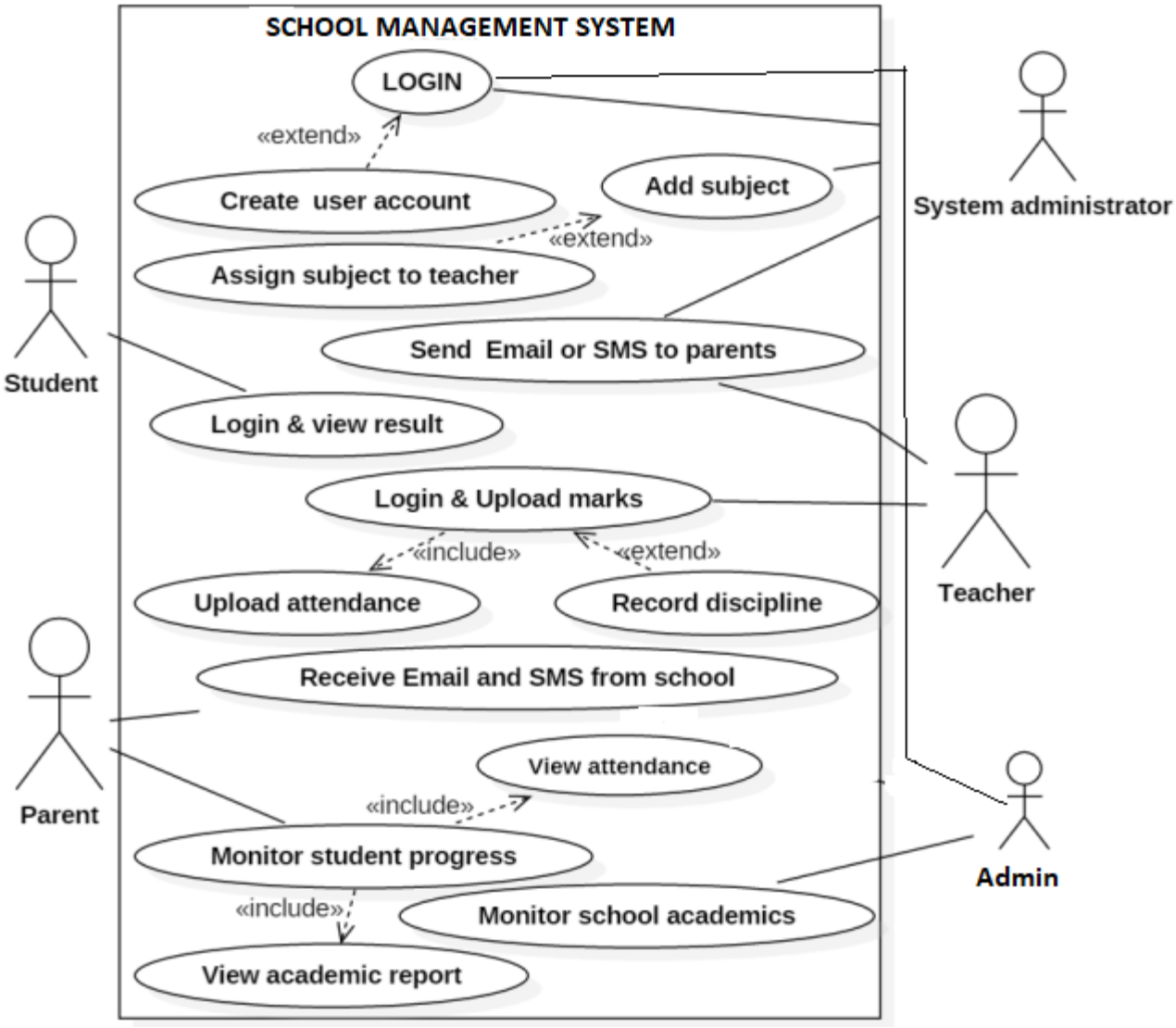
Network software and protocols in order for systems to communicate:

- TCP/IP
- HTTP
- HTTPS
- FTP

Mainframe system :

- IBM Gateway
- IBM DB2 database

2.5 Design and Implementation Constraints



2.6 Assumptions and Dependencies

Following are some assumptions and dependencies which are related to the School Management System project:

- This system is a standalone system. So it will not be affected by the type of system where it is deployed.
- This is an internet and computer based system. The staff of the traditional system are not familiar with using computer and internet technologies in this manner, so training of the staff will be necessary.
- The end-user is familiar with web-based applications and technologies and will be able to use this system without much problem.
- This system will not have any other third party software or hardware dependency. It will be web-based, so that it can be used regardless of the staff and end-users device, operating systems etc.
- Staff and users of this system will have devices with internet communicability.
- This project does contain some valuable features that are not present in the existing school management system. So this project will eventually replace the old systems.
- After this system is adapted, end-users will not need to deal with additional formalities as they had to with the traditional systems.

3. System Features

3.1 User-friendly :

The applications are easy to use and easy to implement. They offer a user-friendly interface that assists a user to smoothly navigate through the options provided in the software.

3.2 More Protected :

The School Management System is more secure as opposed to the traditional style of the old school management system. Students do not have to queue up in order to view the result whenever it is needed.They can do so from the comforts of their homes.

3.3. Fast Payments :

By using sslcommerz students can easily pay his/her admission fees,exam fees,and monthly fees.

3.4 Accessibility :

Since the online student fees payment system is an online tool, it can be accessed anytime and anywhere. Administrators, students , the higher management and the other departments can all access it remotely just by logging into the system with their respective profile.

3.5 Real-time Notifications :

This application can provide a real-time notification in the form of SMS, email, push notifications etc, which keep the students informed about fee dues and financial transactions and notice.

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4. Non-Functional Requirements

4.1. Maintainability

4.2. Portability

4.3. Standard Compliance

4.4. Usability

4.5. Reliability

4.6. Accuracy

4.7. Maximum Bugs or Defect Rate

4.8. Access Reliability

4.9. Availability

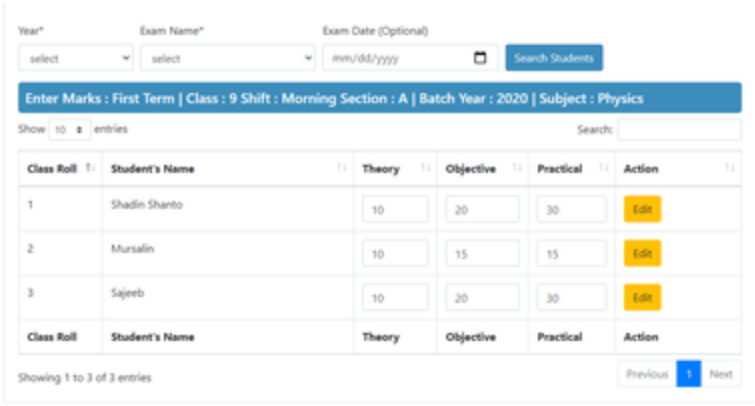
4.10. Security

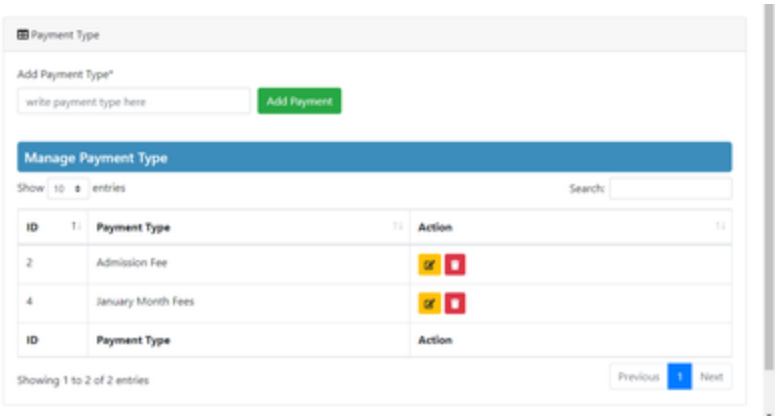
4.11. Mean Time between Failures

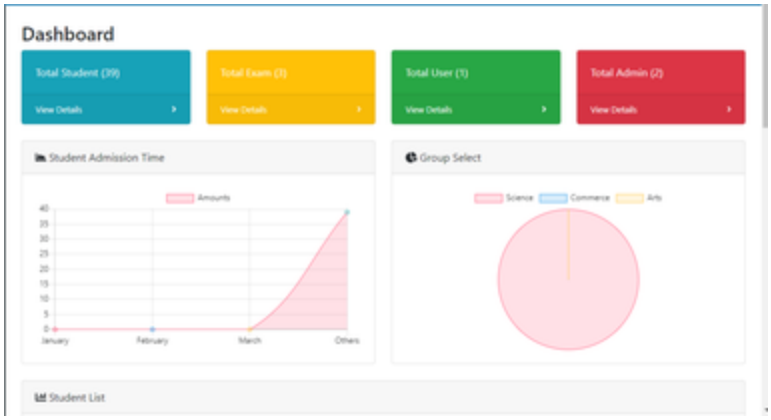
4.12. Mean Time to Repair

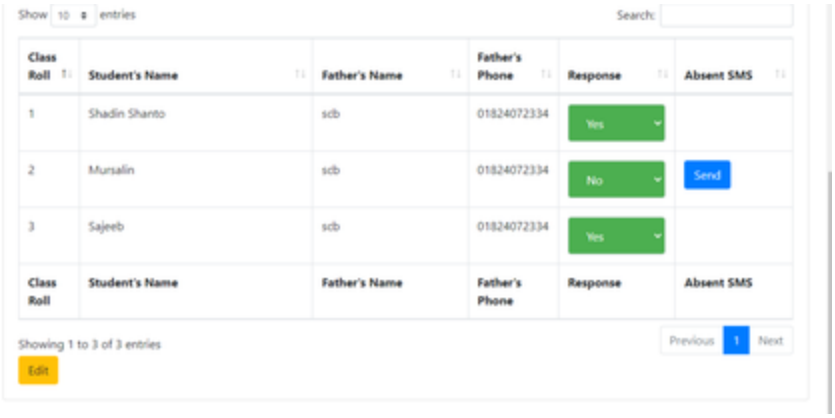
5. External Interface Requirements

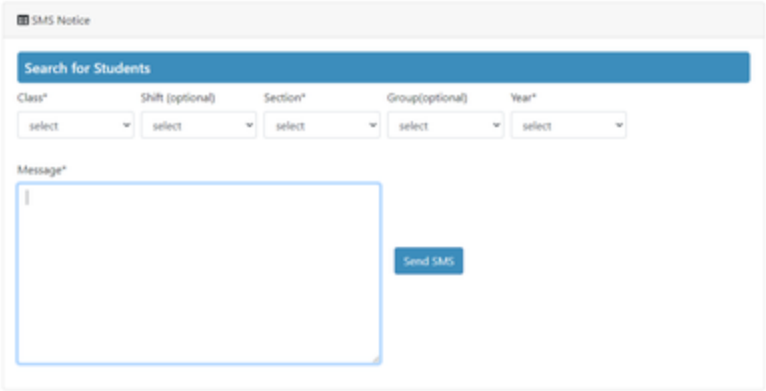
5.1 User Interfaces











5.2 Software Interfaces

The system shall communicate with the billPay system to identify available payment methods , validate the payments and process payment.

6. Detailed Use Cases

Use cases related to Students-

- Login
- View results
- Make admission and others payment
- View attendances
- View notices

Use cases related to Teachers-

- Login
- Insert marks
- Insert attendance
- Send Email or sms to the parent
- Check payment status

Use cases related to Parent-

- Receive email or sms
- Monitoring student progress

Use cases related to System Administrator-

- Login
- Send Email or sms to the parent
- Add subject

Use cases related to Admin-

- Login
- Monitor school activities.

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