VISVESVARAYA TECHNOLOGICAL UNIVERSITY
BELAGAVI

A

PROJECT REPORT

ON

STUDENT MANAGEMENT SYSTEM

Submitted to
Visvesvaraya Technological University, Belagavi
In partial fulfilment of the award of the Degree Bachelor of Engineering
IN

COMPUTER SCIENCE AND ENGINEERING

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KALABURAGI

2023-2024

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INSTITUTE OF TECHNOLOGY
KALABURAGI

DEPARTMENT OF
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Certificate

This is to certify that ***SYED SAAD(3TS21CS036) SUNITA (3TS21CS034) SUSHMA(3TS21CS035) SUMEET(3TS21CS033)*** *of Vth semester has delivered the project on* ***"STUDENT MANAGEMENT SYSTEM"*** *for partial fulfilment of Bachelor of Engineering in COMPUTER SCIENCE AND ENGINEERING prescribed by Visvesvaraya Technological University, Belagavi during the year* ***2023-2024.***

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1.

2.

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ABSTRACT

The Student Management System (SMS) mini project presents a simplified yet comprehensive software solution designed to streamline the administrative processes involved in managing student data within educational institutions. This project aims to address the fundamental challenges faced by administrators in handling student information efficiently.

The primary objectives of the SMS mini project include the creation of a user-friendly interface for administrators to manage student data, facilitate seamless student registration and course management, automate result generation, and ensure data integrity and security through robust authentication mechanisms.

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CHAPTER 1

INTRODUCTION

1.1 PROBLEM STATEMENT

Educational institutions face significant challenges in efficiently managing student data and administrative processes. Manual handling of student information often leads to errors, delays, and inefficiencies. Therefore, there is a critical need for an automated Student Management System (SMS) that can streamline the management of student records, course details, and result generation.

The manual management of student data in educational institutions is inefficient and error-prone. Common problems include:

- Data Redundancy and Inconsistency: Multiple instances of student data stored in various formats lead to redundancy and inconsistency, making it difficult to maintain data integrity.
- Time-Consuming Administrative Tasks: Manual entry of student information, course details, and result generation is time-consuming and labor-intensive, reducing administrative efficiency.
- Difficulty in Tracking Student Progress: Lack of a centralized system makes it challenging for administrators to track student progress, monitor academic performance, and generate timely reports.
- Limited Accessibility and Security Concerns: Traditional paper-based systems restrict accessibility to student data and raise security concerns regarding unauthorized access and data loss.

1.2 Background and motivation

Educational institutions play a pivotal role in society by imparting knowledge and shaping future generations. However, managing the administrative tasks associated with student data can be a daunting challenge. Traditionally, educational institutions have relied on manual methods for handling student information, including paper-based records and spreadsheets. These methods are prone to errors, inefficiencies, and security risks.

As educational institutions continue to grow in size and complexity, the need for a more sophisticated and efficient system for managing student data becomes increasingly apparent. A digital solution that centralizes student records, streamlines administrative processes, and enhances data security is essential to meet the evolving needs of educational institutions in the modern era.

In summary, the development of a Student Management System is motivated by the desire to improve efficiency, ensure data integrity, enhance accessibility, strengthen security, support better decision making, and ultimately enhance the overall educational experience for students and stakeholders alike.

1.3 Objectives

The Student Management System aims to address the following objectives:

1. Develop a centralized system for managing student records, course details, and academic performance.
2. Streamline administrative tasks related to student registration, course management, and result generation.
3. Ensure data integrity, consistency, and security through proper authentication mechanisms and data encryption.
4. Provide easy access to student information for administrators, faculty, and students while maintaining privacy and confidentiality.
5. Enhance operational efficiency, decision-making processes, and overall student experience within the educational institution.

The proposed solution is to develop a comprehensive Student Management System (SMS) software application. The system will feature modules for student registration, course management, result generation, and reporting. It will utilize a centralized database to store student records, course details, and evaluation criteria. The user interface will be intuitive and user-friendly, allowing administrators, faculty, and students to access relevant information securely.

CHAPTER 2

SYSTEM STRUCTURE

2.1 SOFTWARE REQUIREMENTS

1. **BROWSER:** Any Browser (preferred Google Chrome)
2. **Operating System:** Windows 8/10/11
3. **Server:** Laragon/Xamp
4. **Database Environment:** PhpMyAdmin i.e. MySQL

2.2 HARDWARE REQUIREMENTS

1. **Processor:** Intel i5-9300H @ 2.40GHz
2. **RAM:**4 GB
3. **Space:**32 Mb

2.3 TECHNOLOGIES USED

Front-End Technologies:

- HTML
- CSS
- JavaScript

Back-End Technologies:

- PHP
- MySQL

Server Environment:

- Laragon/Xamp

Asynchronous Communication:

- AJAX (Asynchronous JavaScript and XML)

CHAPTER 3

OVERVIEW OF TECHNOLOGIES USED

ABOUT HTML:

HTML is the standard mark-up language for creating Web pages.

What is HTML?

- HTML stands for Hyper Text Mark-up Language
- HTML is the standard mark-up language for creating Web pages
- HTML describes the structure of a Web page
- HTML consists of a series of elements
- HTML elements tell the browser how to display the content

HTML APPLICATION:

An HTML Application (HTA) is a Microsoft Windows program whose source code consists of HTML, Dynamic HTML, and one or more scripting languages supported by Internet Explorer, such as VBScript or JScript.

ABOUT CSS:

CSS is the language we use to style a Web page.

What is CSS?

- CSS stands for Cascading Style Sheets
- CSS describes how HTML elements are to be displayed on screen, paper, or in other media
- CSS saves a lot of work. It can control the layout of multiple web pages all at once
- External stylesheets are stored in CSS files

TAILWIND CSS:

Tailwind CSS is a design system implementation in pure CSS. It is also configurable. It gives developers super powers. It allows them to build websites with a clean consistent UI out of the box.

PHP:

What is PHP?

- PHP is an acronym for "PHP: Hypertext Pre-processor"
- PHP is a widely-used, open source scripting language
- PHP scripts are executed on the server
- PHP is free to download and use
- PHP files can contain text, HTML, CSS, JavaScript, and PHP code
- PHP code is executed on the server, and the result is returned to the browser as plain HTML
- PHP files have extension ".php"
- PHP runs on various platforms (Windows, Linux, Unix, Mac OS X, etc.)
- PHP is compatible with almost all servers used today (Apache, IIS, etc.)

MY SQL:

MySQL is a very popular open-source relational database management system (RDBMS).

What is MySQL?

- MySQL is a relational database management system
- MySQL is open-source
- MySQL is free
- MySQL is ideal for both small and large applications
- MySQL is very fast, reliable, scalable, and easy to use
- MySQL is cross-platform
- MySQL is compliant with the ANSI SQL standard
- MySQL was first released in 1995
- MySQL is developed, distributed, and supported by Oracle Corporation

CHAPTER 4

DATABASE DESIGN

Designing a database for a student management system involves several tables to capture various aspects of student information. Here's a basic schema

1.Admin Table:

- ID
- AdminName
- UserName
- MobileNumber
- Email
- Password
- AdminRegdate

2.Class Table:

- ID
- ClassName
- Section
- CreationDate

3.Notice Table:

- ID
- NoticeTitle
- ClassId
- NoticeMsg
- CreationDate

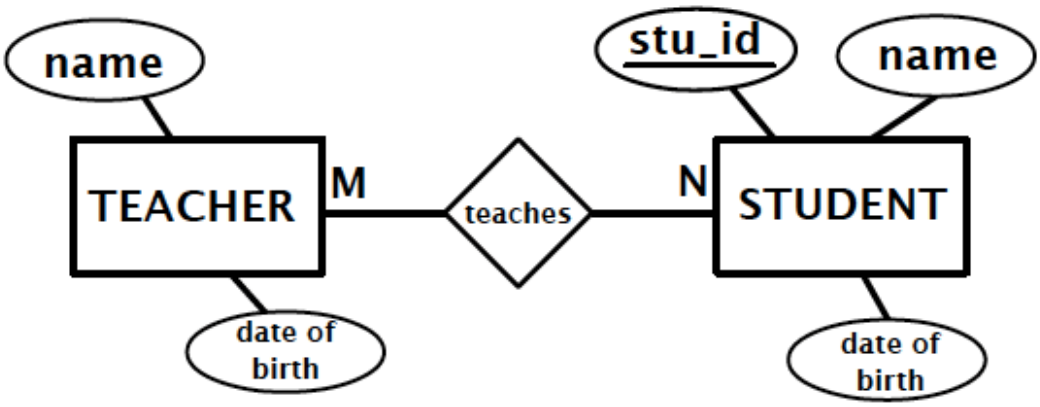
4.PublicNotice Table:

- ID
- NoticeTitle
- NoticeMessage
- CreationDate

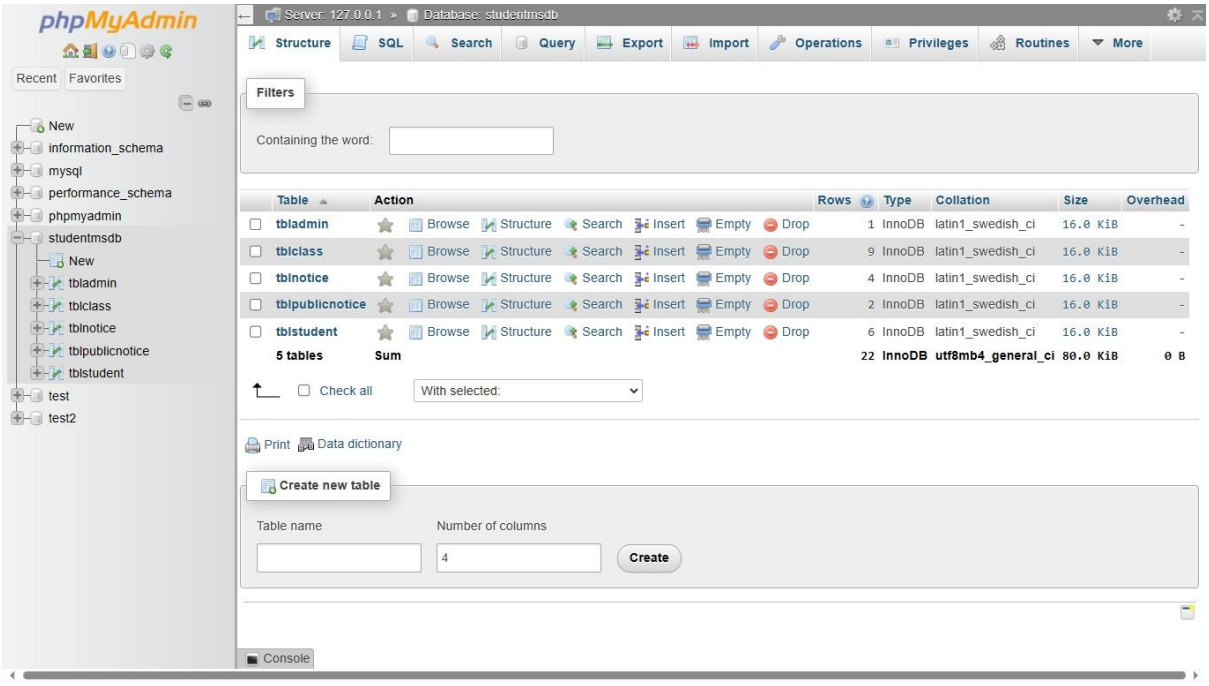
5.Student Table:

- ID
- StudentName
- StudentEmail

- StudentClass
- Gender
- DOB
- StuID
- FatherName
- MotherName
- ContactNumber
- AltenateNumber
- Address
- UserName
- Password
- Image
- DateofAdmission



DATABASE:



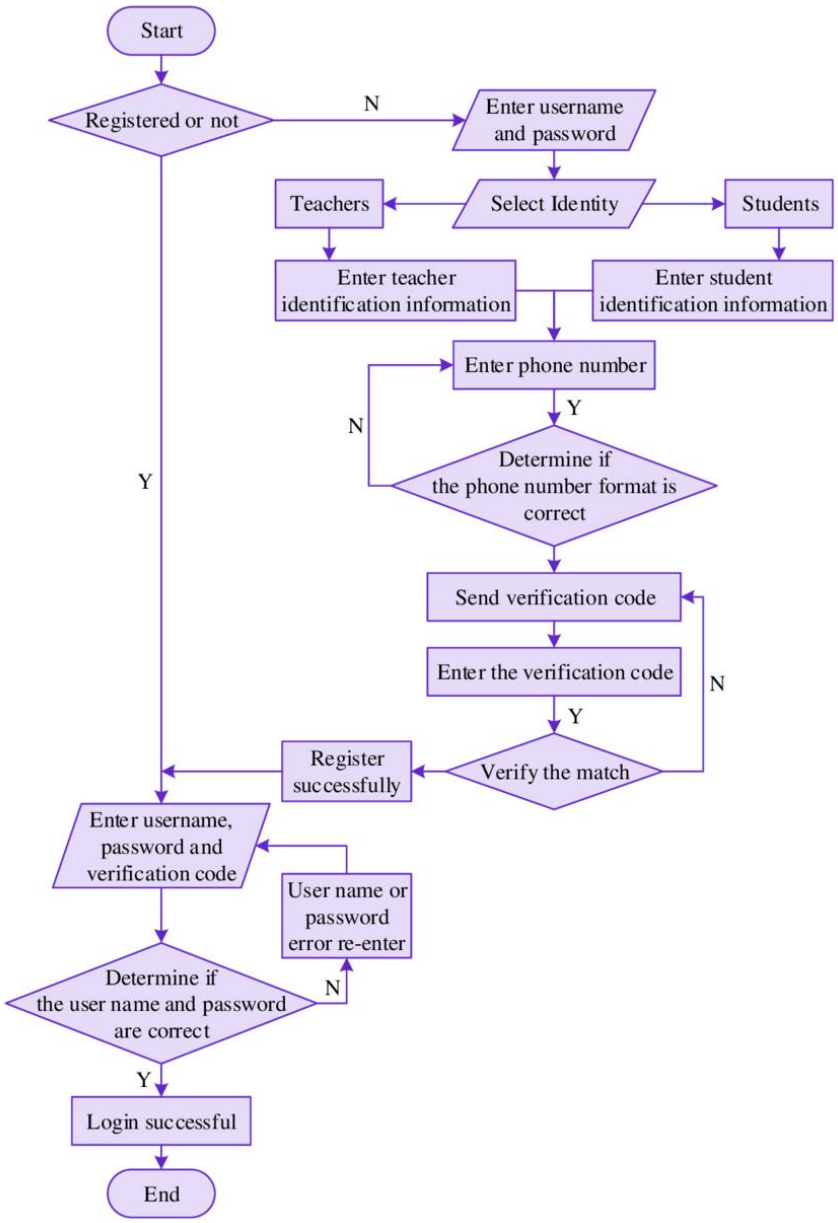
ER Diagram:

CHAPTER 5

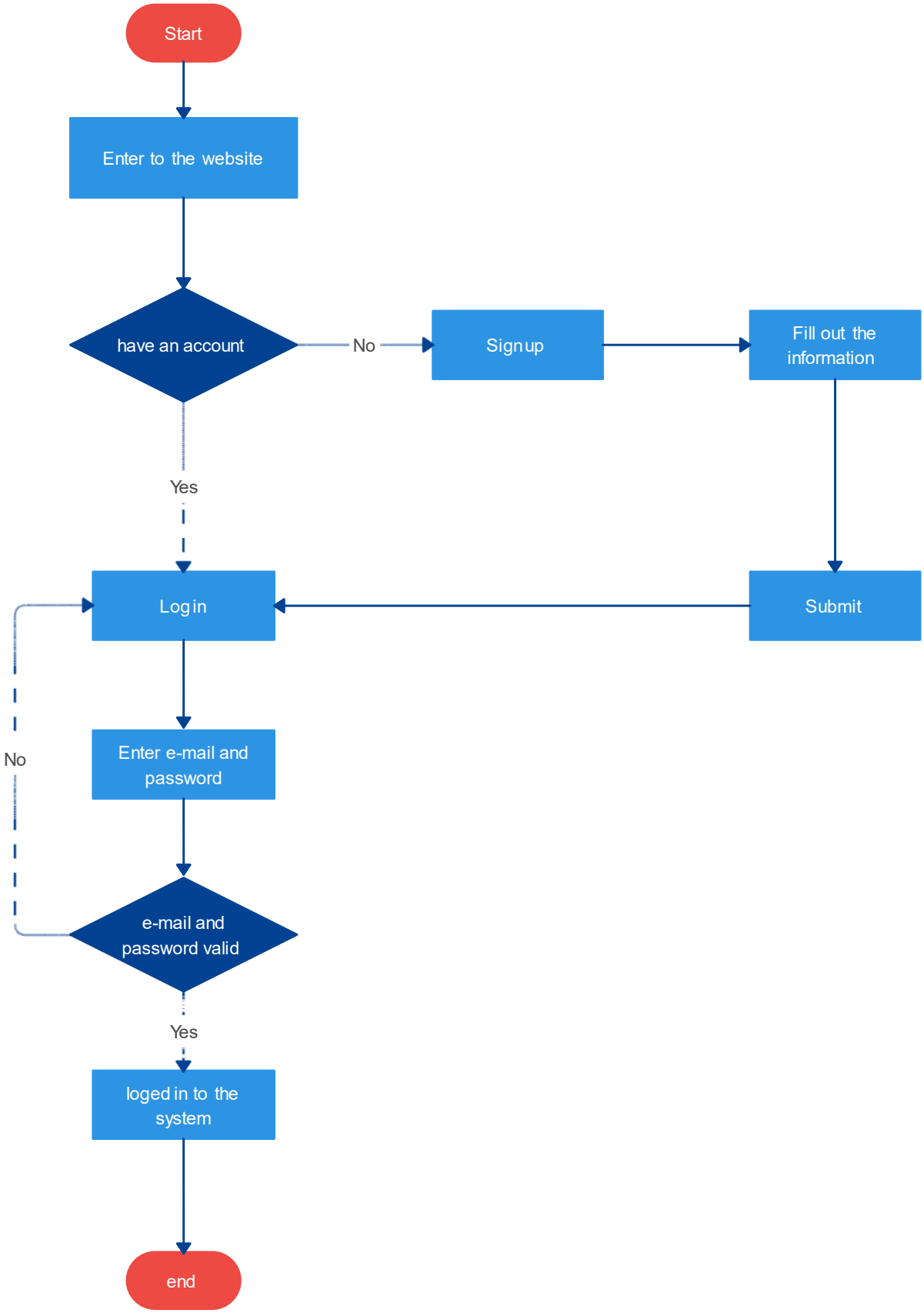
UML diagram

UML, which stands for Unified Modelling Language, is a way to visually represent the architecture, design, and implementation of complex software systems. When you're writing code, there are thousands of lines in an application, and it's difficult to keep track of the relationships and hierarchies within a software system. UML diagrams divide that software system into components and subcomponents.

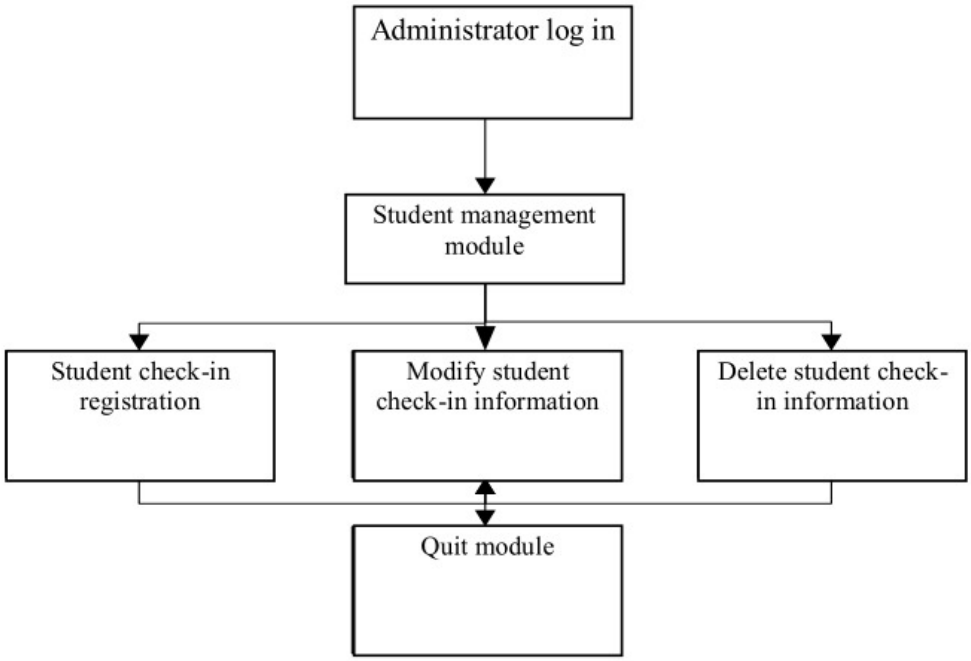
Registration: -



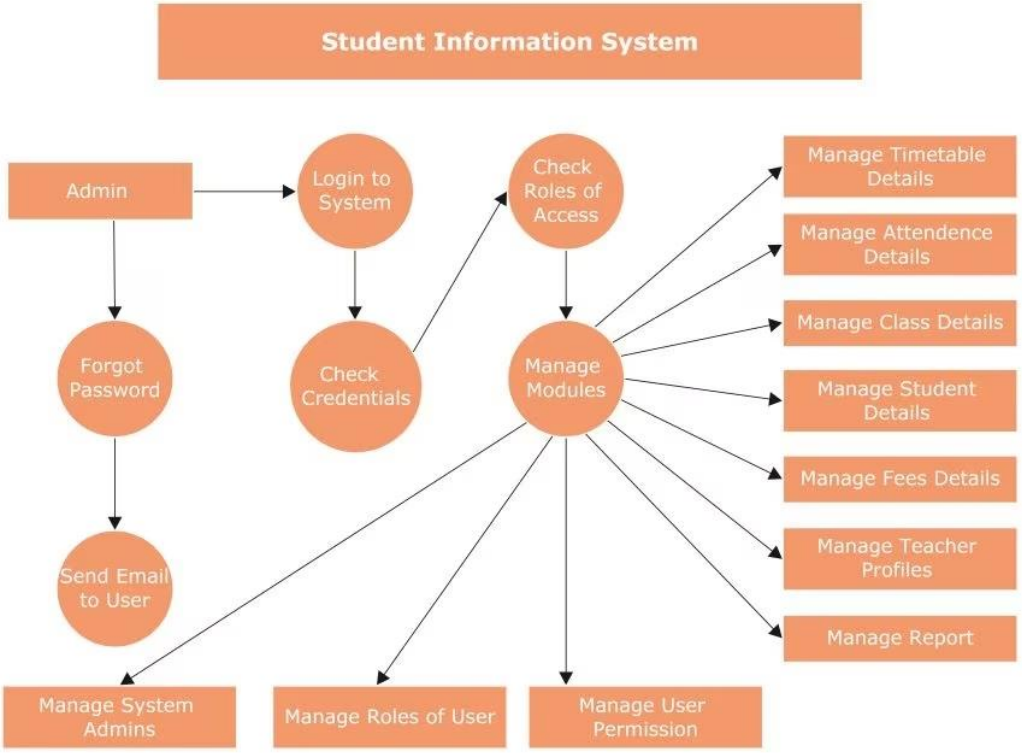
Login: -


Start
Enter to the website
have an account
No
Sign up
Fill out the information
Yes
Log in
Submit
No
Enter e-mail and password
e-mail and password valid
Yes
loged in to the system
end

Management: -



Details:

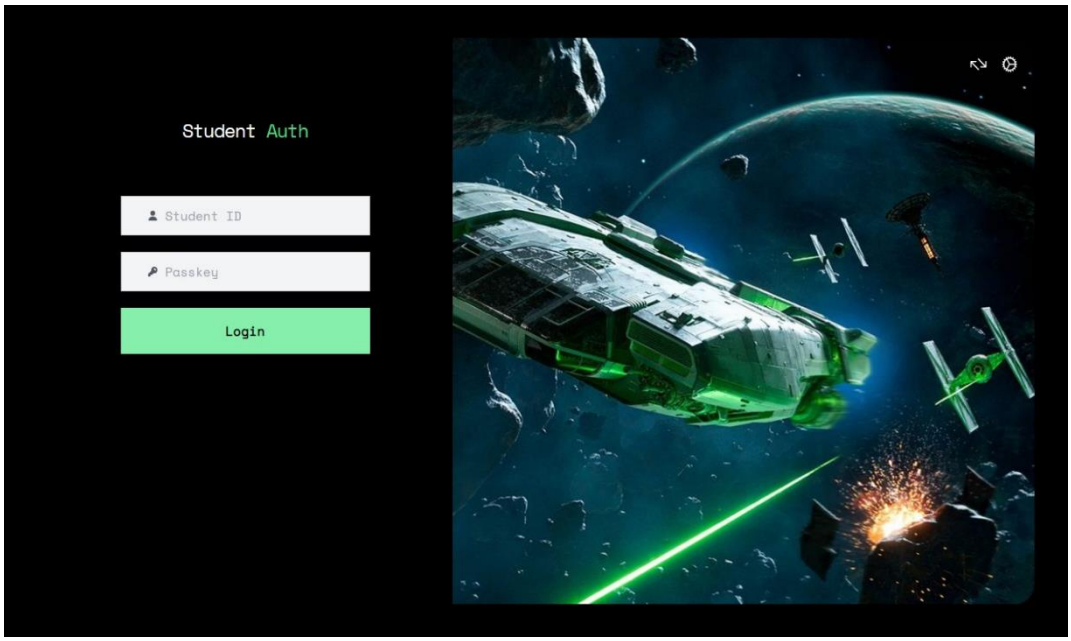


CHAPTER 6

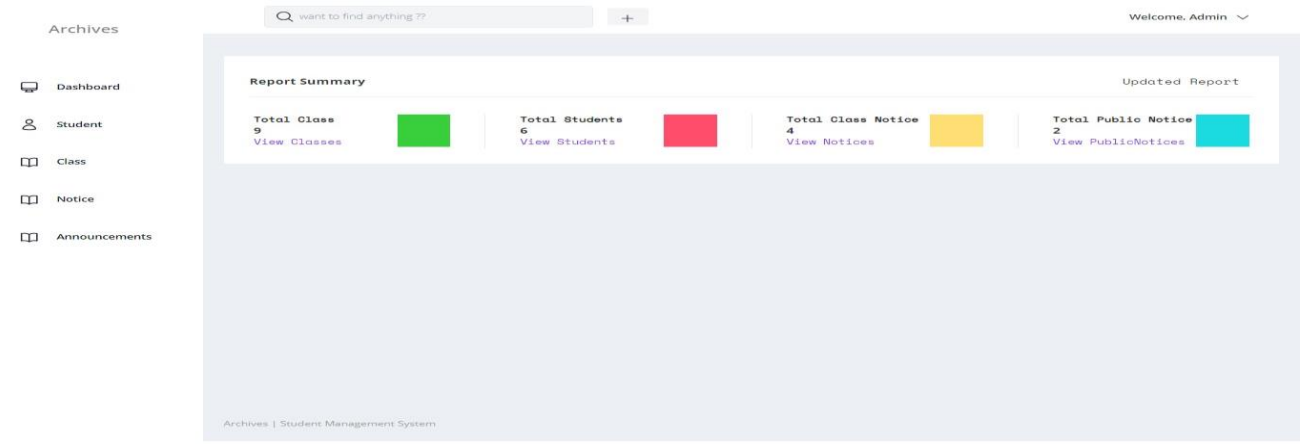
OUTPUT SCREENS

Teacher Login:

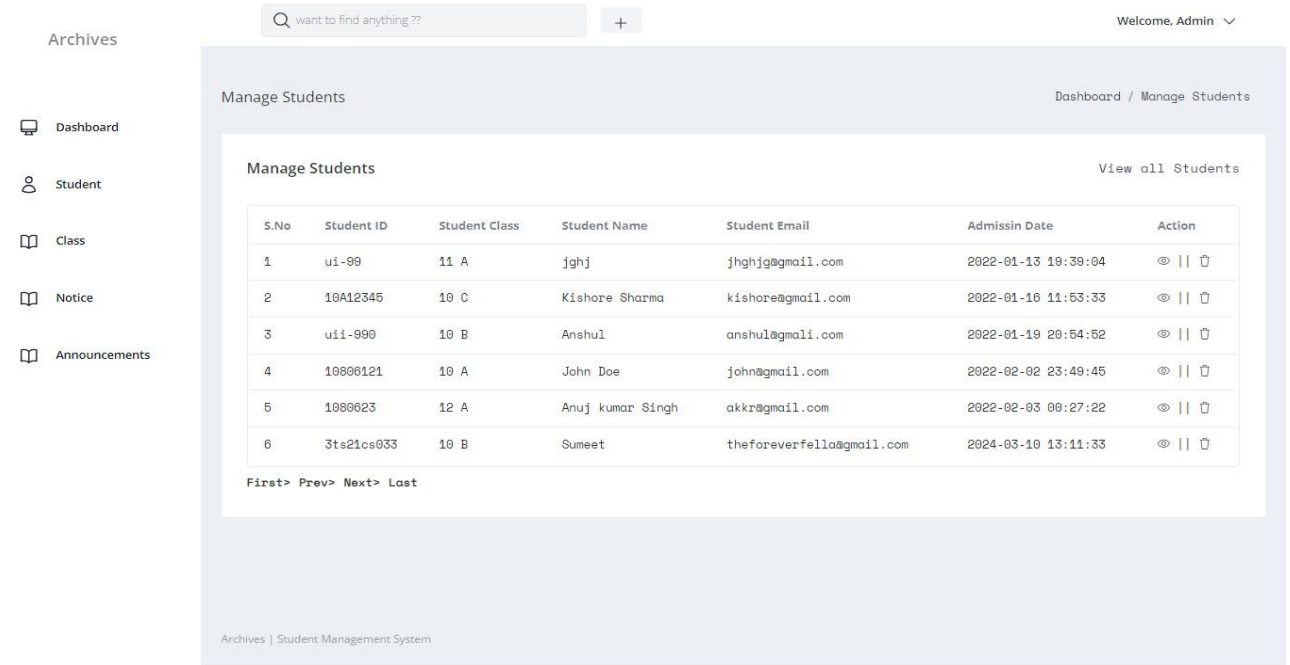
Student Login:



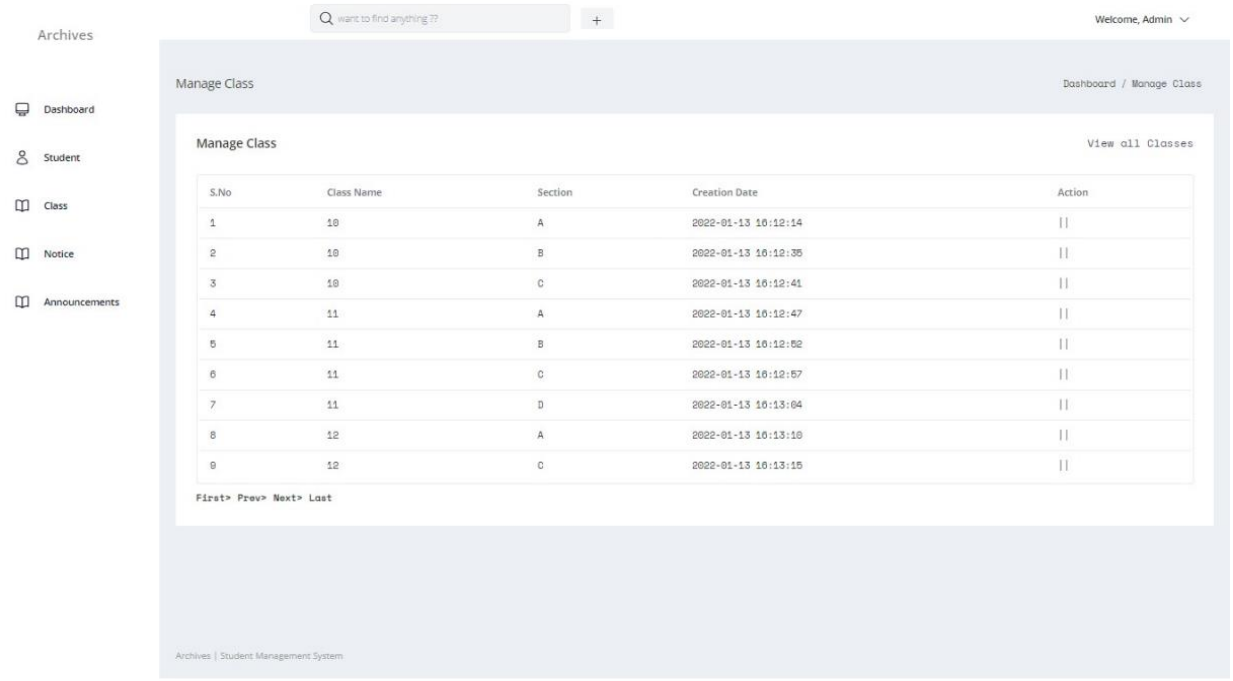
Admin:



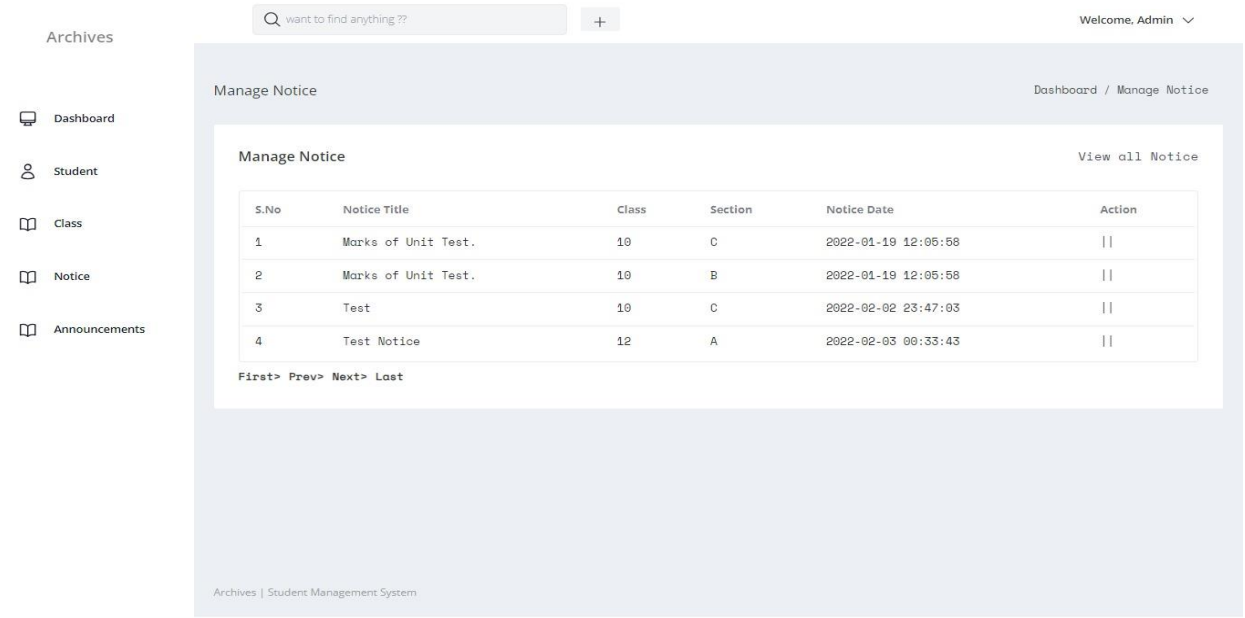
Dashboard:



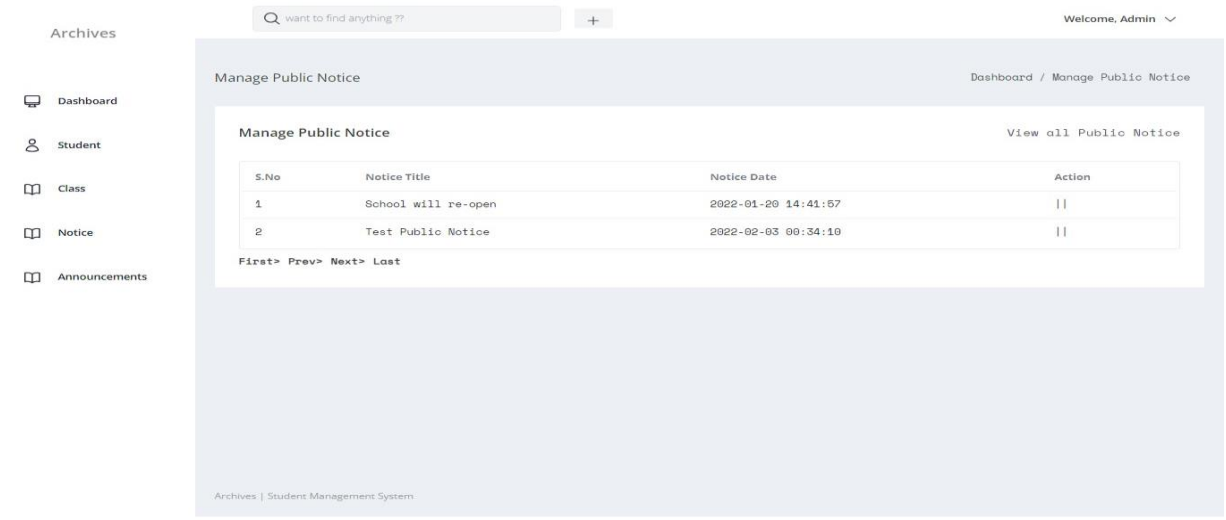
Manage Class:



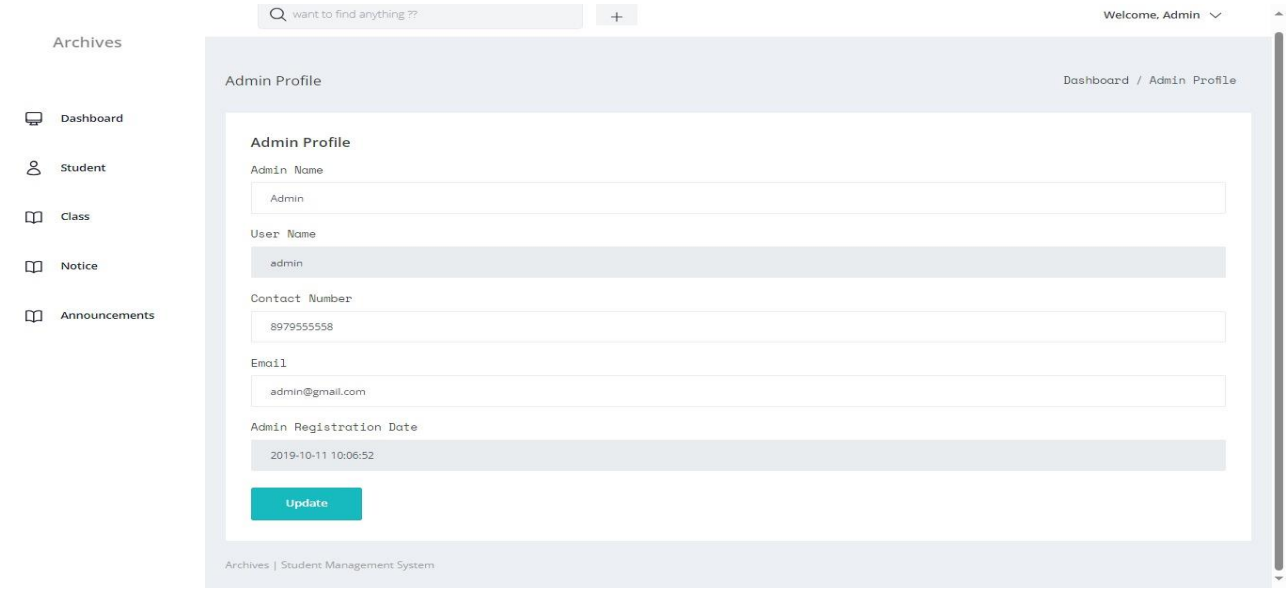
Manage Notice:



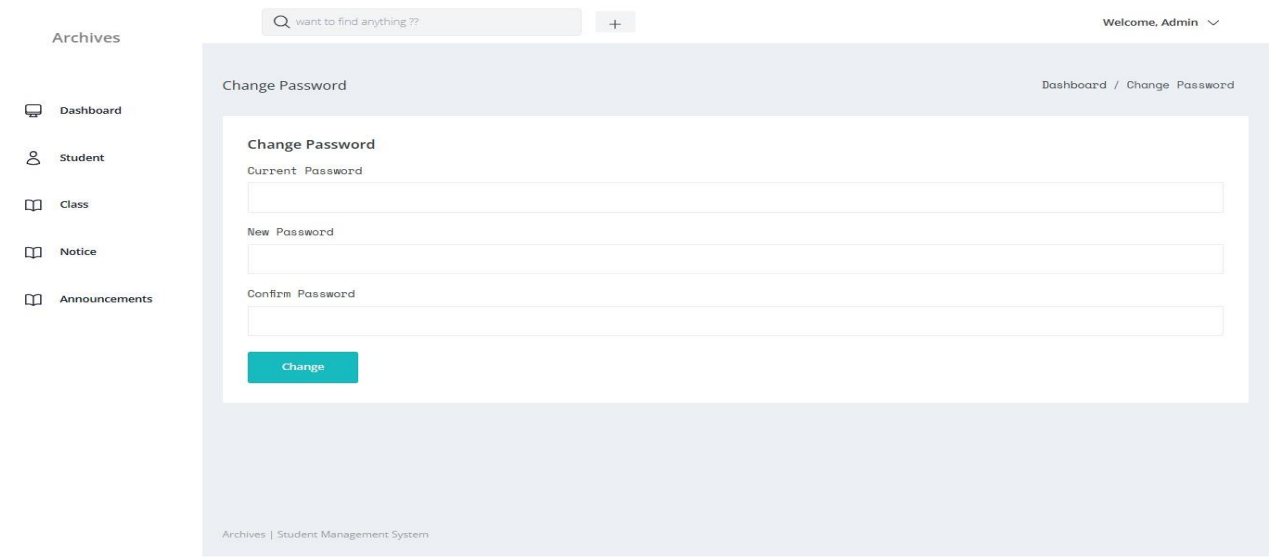
Manage Public Notice:



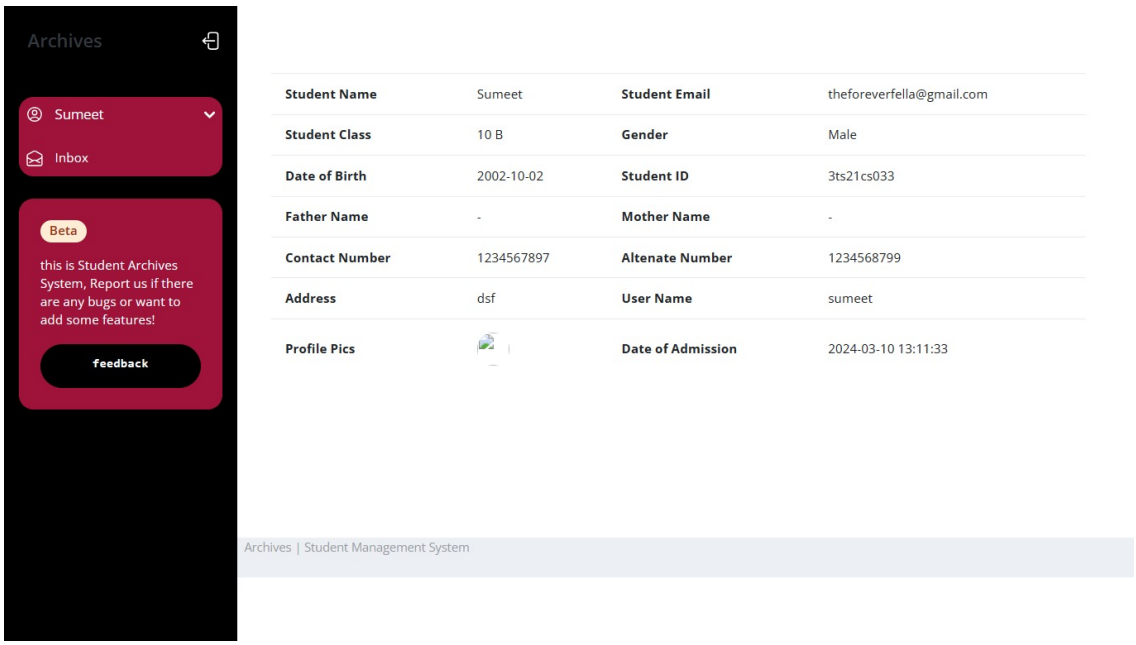
Admin Profile:



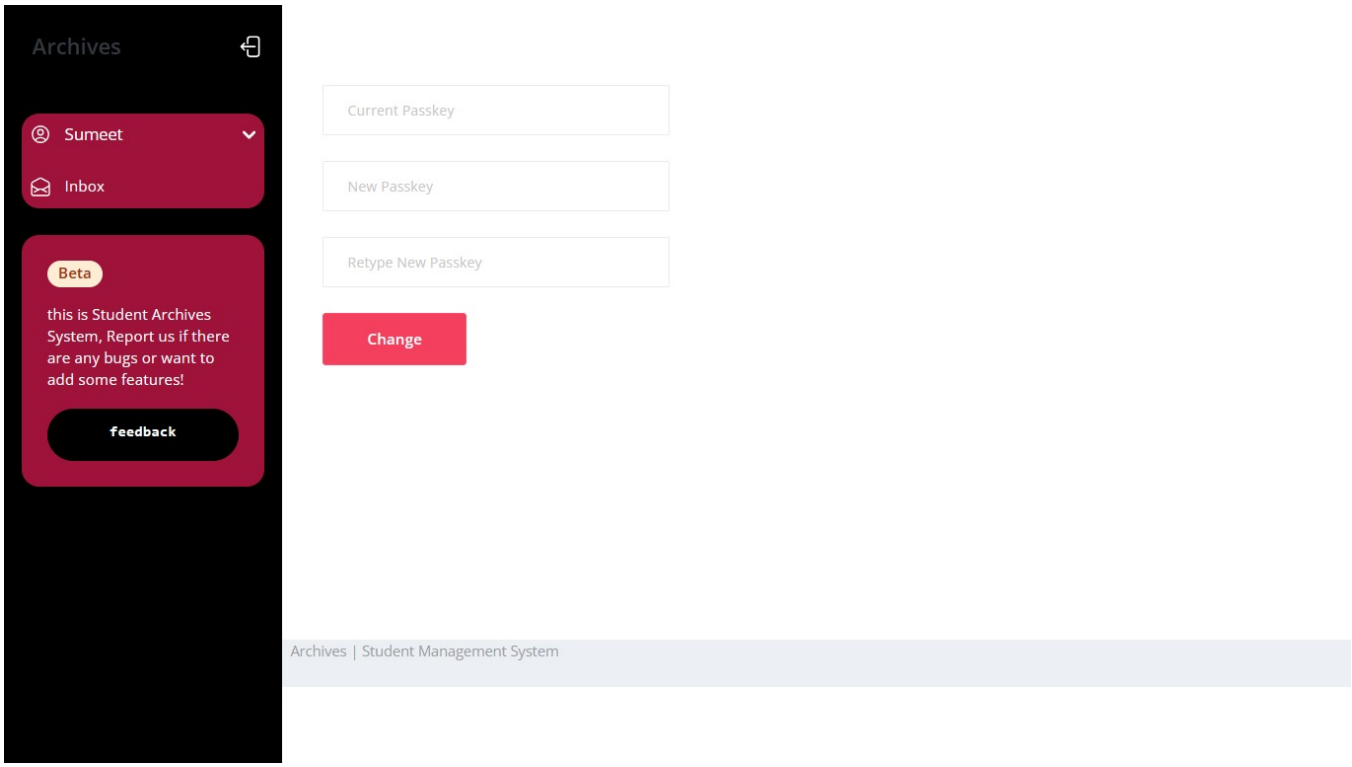
Password Recover:



Student Details:



Student's Password Recovery:



CHAPTER 7

Conclusion

Using a student management system in school can benefit students and staff significantly. Therefore, by streamlining administrative tasks, reducing errors, and centralizing student data, a student management system can increase the efficiency of school operations and save time**.**

In conclusion, designing a student management system requires careful consideration of various aspects such as student information, course details, instructor data, enrollments, and grades. A well-designed database schema like the one outlined earlier can efficiently manage these components and facilitate tasks such as student registration, course enrollment, grade tracking, and instructor management. Additionally, incorporating features like user authentication, data validation, and reporting capabilities can enhance the system's functionality and usability. Overall, a robust student management system can streamline administrative processes, improve communication, and enhance the overall educational experience for students, instructors, and administrators alike.

CHAPTER 8

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