

Student Management System



Under The
University of Calcutta

Developed by

Under the supervision of
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INTRODUCTION

A Student Management System is a software that manages the students records of an institution , thus helping in maintaining the data in a efficient way and extract meaningful information form that data.

Product Function:

An Administrator can login into the system and perform any of the available operations,

- ☐ Can edit student information to the database.
- ☐ Can make search for a specific student.
- ☐ Can access all the details of the student

A Student can login into the system and perform any of the available operations,

- ☐ Can check their details
- ☐ Pay their fees





MOTIVATION

Motivation :

- ☐ To meet a solution , that provides an effective way to manage students records for , small institutes and , Edu-tech startups , large and medium scale tutitions, small schools .
- ☐ To overcome existing problems faced , in manual record handelling and maintainance .

Software Development Model

Spiral Model

Spiral model

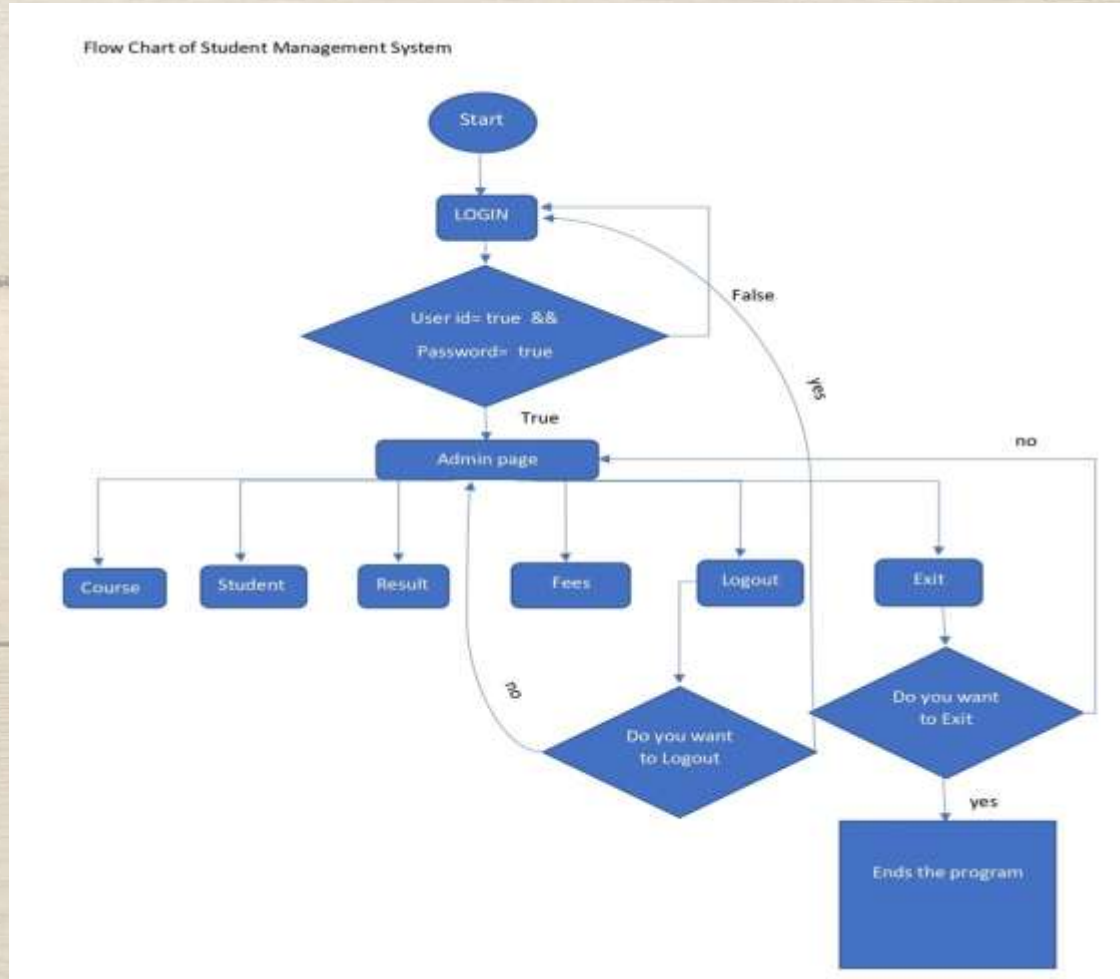


We have used the spiral model for its , effectiveness , as expertise was less and the project requirements are subject to change as per customer requirements , we decided to follow the spiral model of development .

Instead of customer feedback we used team feedback , after completion of each release and gradually the software came into form,

For this quick development we used python and in the Web front we used JSP technology as JVM is very reliable .

Admin side flow chart



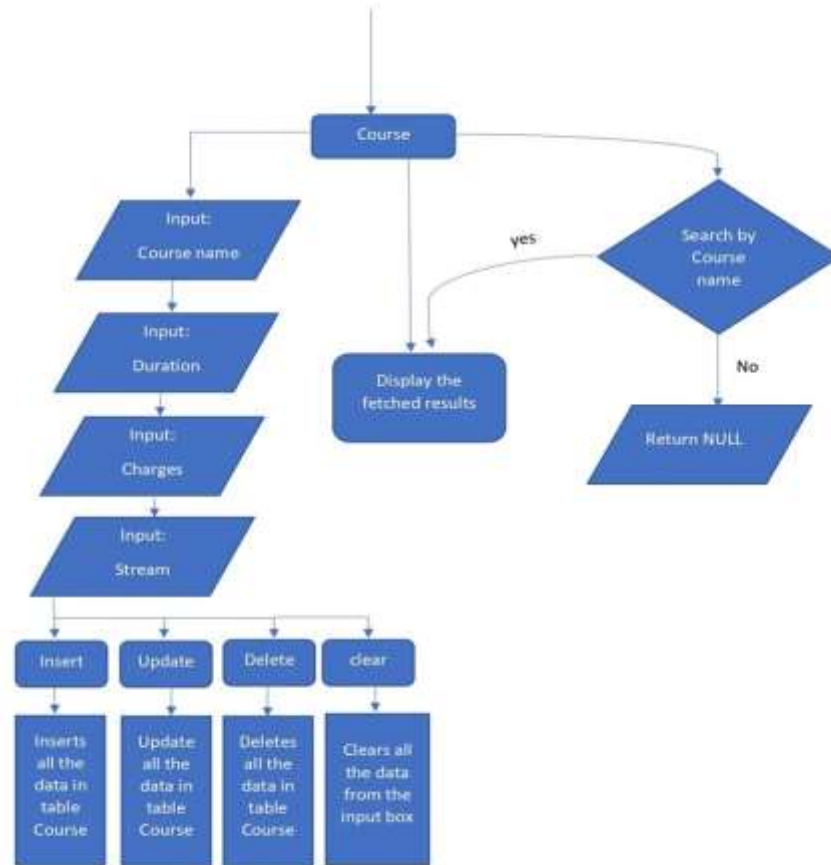
Login systems
And other
Sub-systems





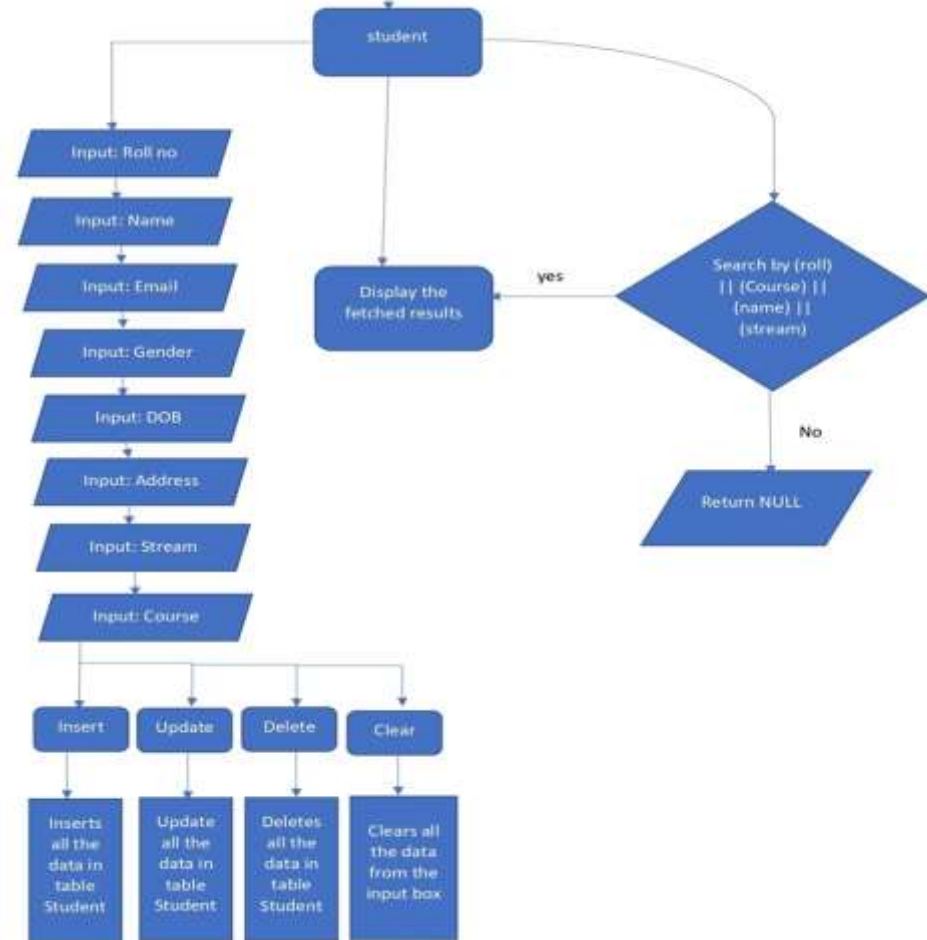
Course management system

Course Management Sub System in Student Management System



Student details management system

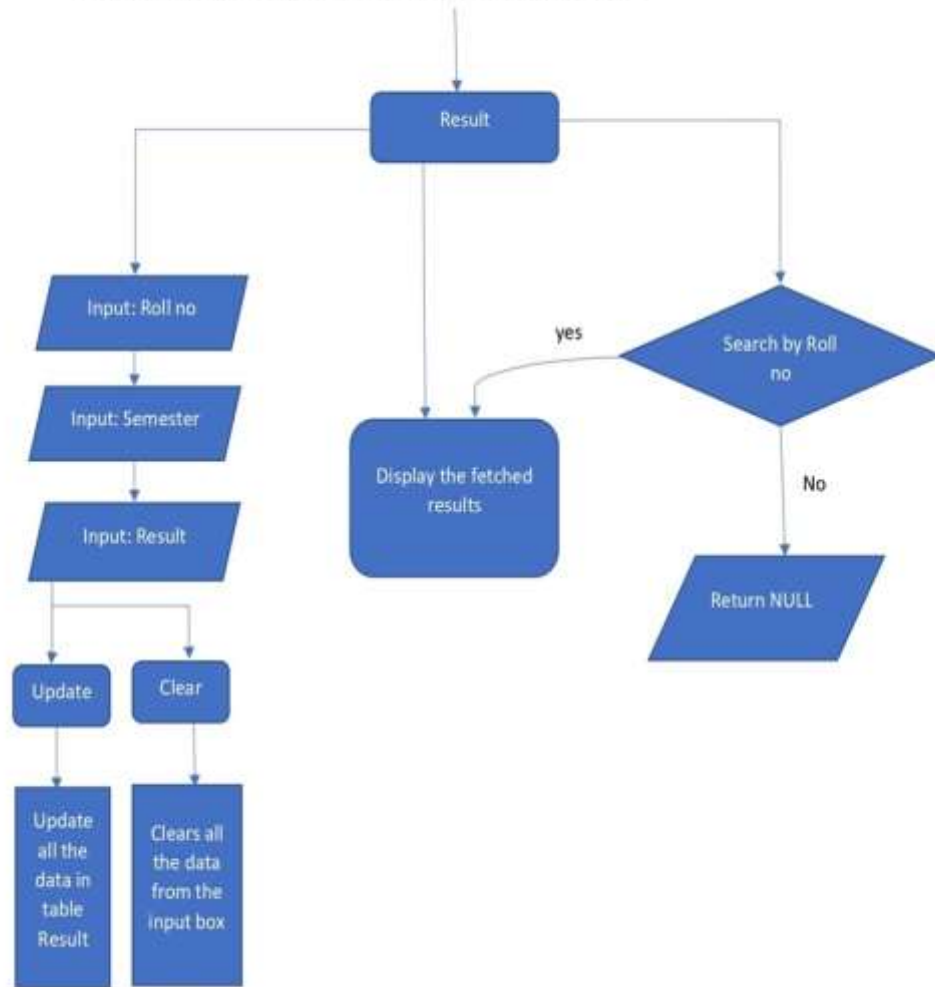
Student Data management Sub System under Student Management System





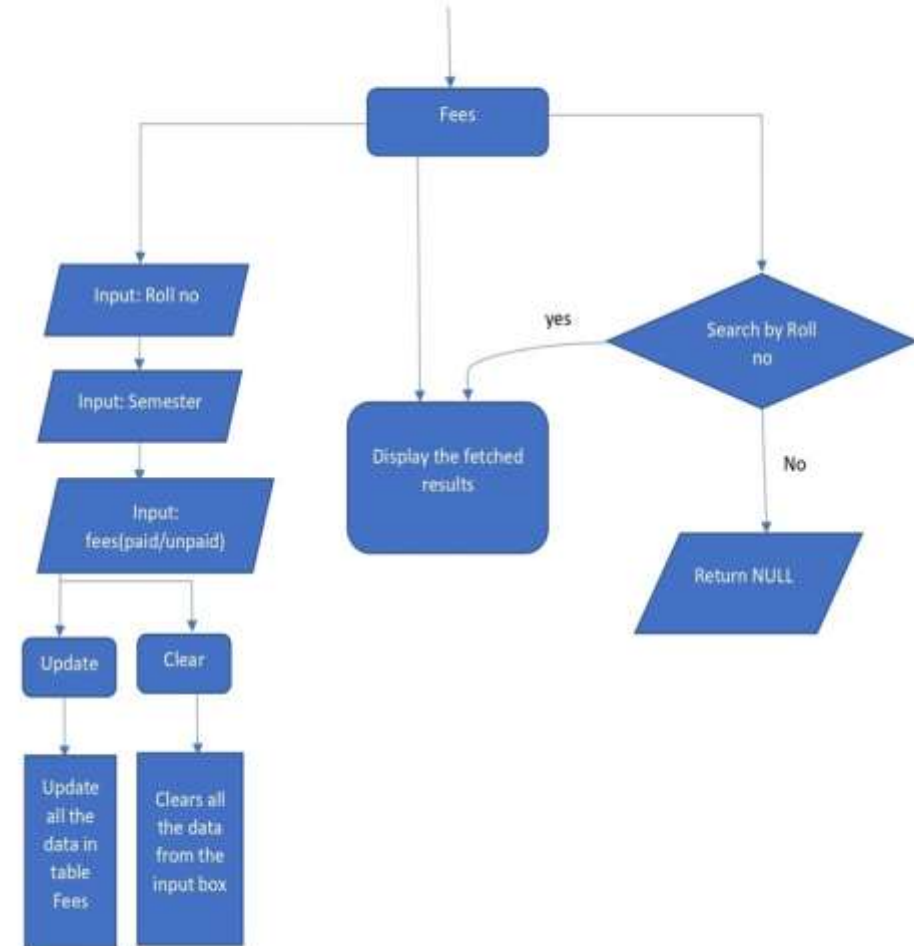
Results Management System

Result Management Sub System under Student Management System.



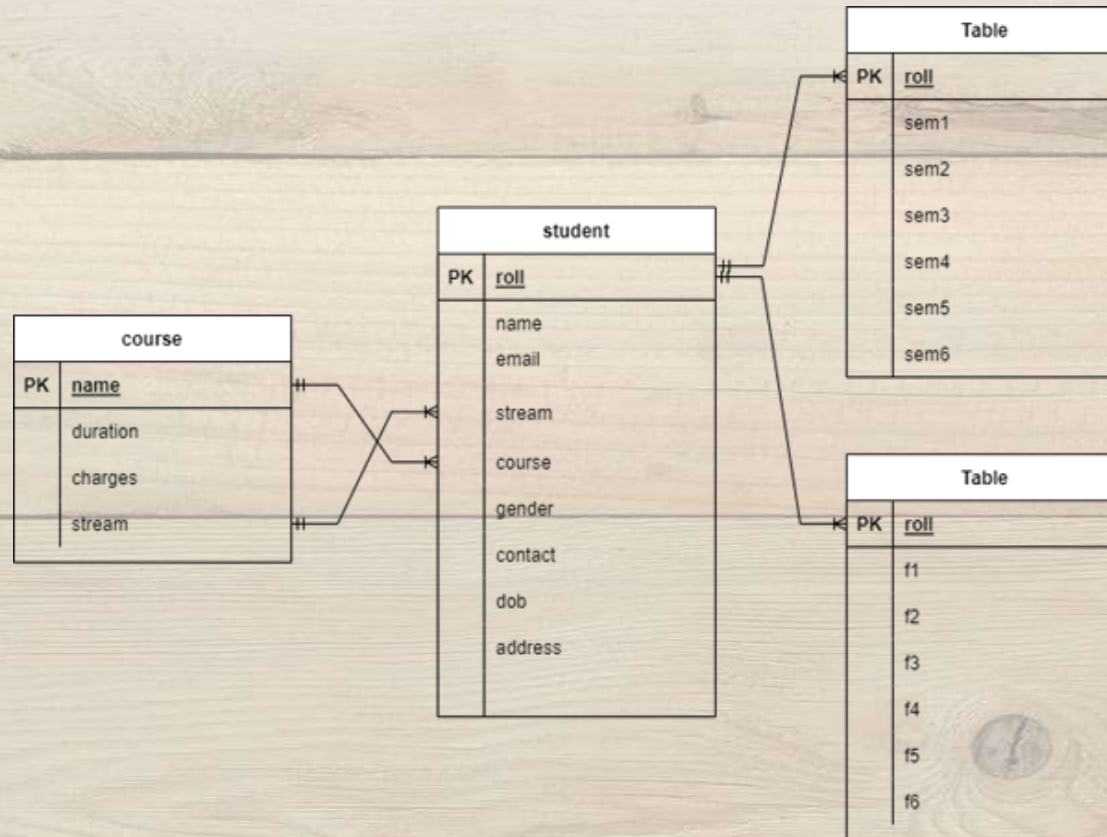
Fees Management System

Fees Management Sub System under Student Management System.



Data Base MySQL

ER Diagram



The Entity Relationship Diagram is used to define the workflow of a Data Base ,

☐ Course table

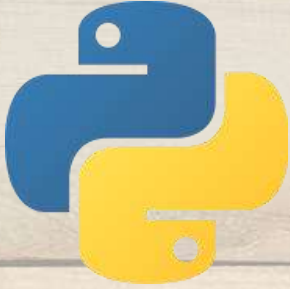
☐ Student table

☐ Result table

☐ Fees table

Admin Side Software

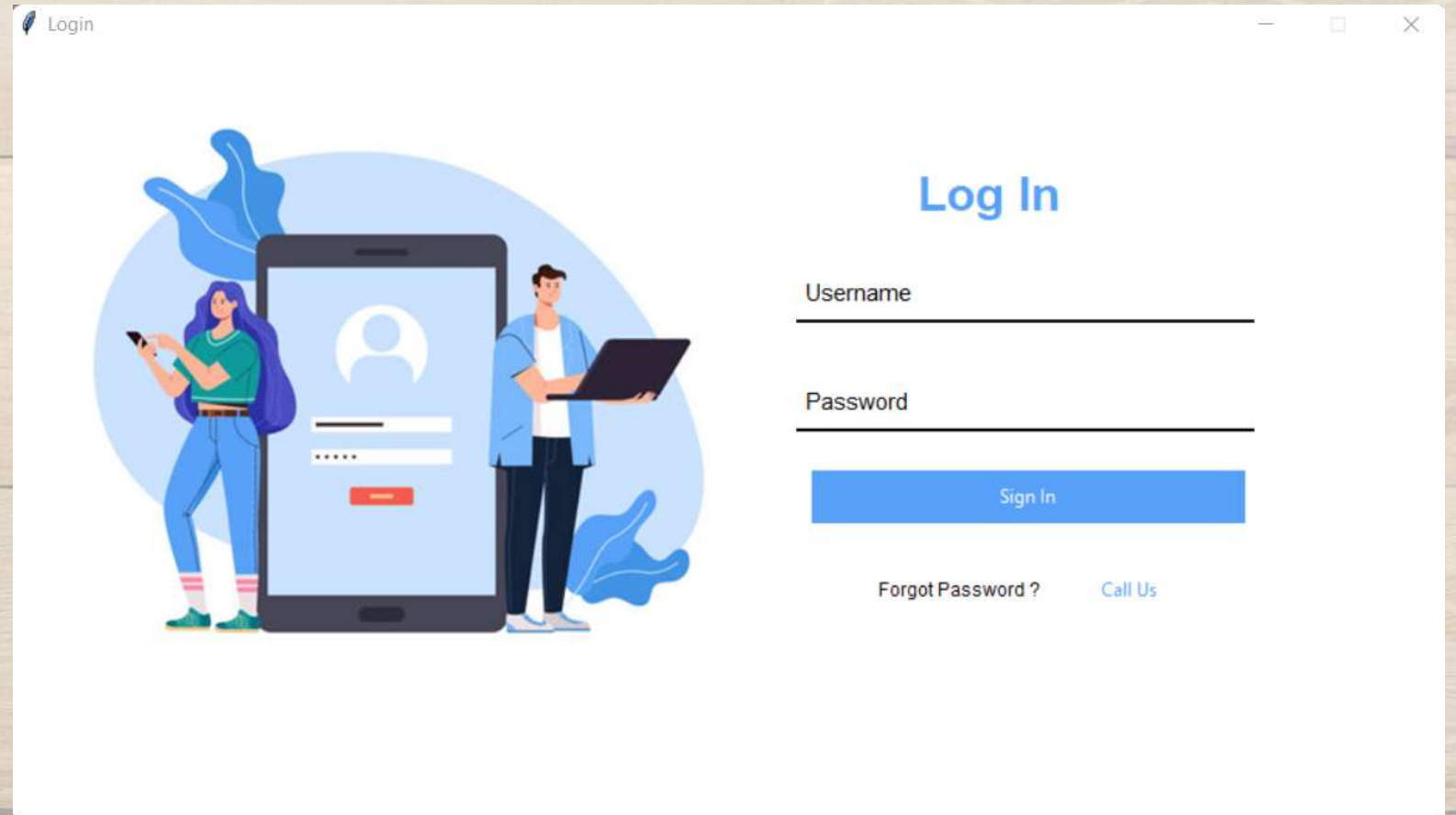
Login page

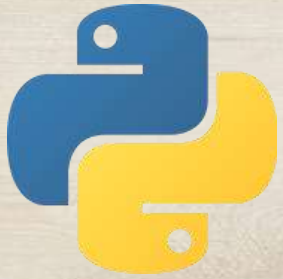


Python is used in this project for the admin side Work . Libraries used are

- ☐ Tkinter
- ☐ PyMysql
- ☐ Pillow
- ☐ os

Python was used to for quick development and deployment of the project

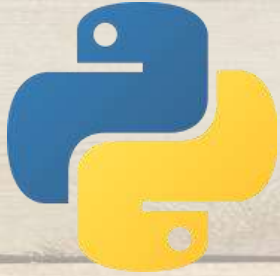
A mockup of a login page titled "Login" in the top left corner. The page features a large illustration on the left showing a woman with a smartphone and a man with a laptop, both interacting with a large smartphone screen that displays a login form with a profile icon, a username field, a password field with masked characters, and a red "Login" button. To the right of the illustration, the text "Log In" is displayed in a large blue font. Below this, there are two input fields: "Username" and "Password", each with a horizontal line underneath. A blue button labeled "Sign In" is positioned below the password field. At the bottom, there are two links: "Forgot Password ?" and "Call Us".



Admin page

- ☐ Admin has full control over the students details
- ☐ Admin can perform CRUD operations on students data





course page

- ❑ **CRUD** operations on courses can be performed

course

Course Management

Course Name

Duration

Charges

Stream

Search by | Course Name

Search

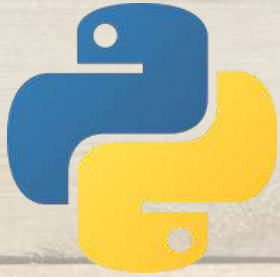
Course	Duration	Charges	Stream
BENGALI	3 YEAR	1000	Arts
CMSA	3 YEAR	7800	Science
CMSG	3 YEAR	5800	Science
ECONOMICS	3 YEAR	4000	Commerce
ELTG	2 YEAR	3500	Science
ENGLISH	3 YEAR	1500	Arts
HINDI	3 YEAR	1000	Arts
POL. SC.	3 YEAR	4000	Commerce

Save

Update

Delete

Clear



Student page

- ❑ **CRUD** operations on Student data can be performed

Student Management System

Student Management System

Manage Students

Roll No.

Name

Email

Gender

Contact

DOB

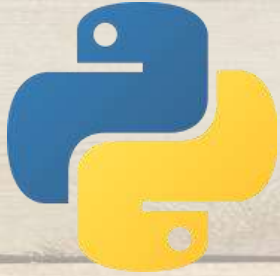
Address

Stream

Course

Search By

Roll No.	Name	Email	Stream	Course	Gender	Contact	DOB
10001	Kunal Pal	kunal.pal1010@g	Science	CMSA	male	9635403297	05/08/2001
10002	Amab Manna	amabmanna@gn	Science	CMSA	male	9330234126	01/01/2001



Result page

- ❑ CRUD operations on Students results can be performed

RESULT MANAGEMENT SYSTEM

RESULTS MANAGEMENT SYSTEM

Manage Results

Roll No.

Semester

Result

UPDATE

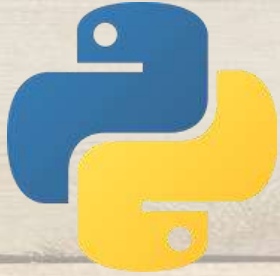
CLEAR

Search By Roll and Semester

Roll No.

Search

Roll	Sem 1	Sem 2	Sem 3	Sem 4
10001	70	80	84	88
10002	87	67	85	90



- ❑ CRUD operations on Students Fees can be performed

Fees page

FEES MANAGEMENT SYSTEM

Manage Results

Roll No.

Semester

Fees

UPDATE

CLEAR

Search By Roll and Semester

Roll No.

Search

Roll	Sem 1	Sem 2	Sem 3	Sem
10001	paid	paid	paid	paid
10002	paid	paid	paid	paid

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Student Side Software



Home page

Java is used in this project for the Student side

Work . Because it's a web based system, for students to see their details,

☐ JSP technology was used

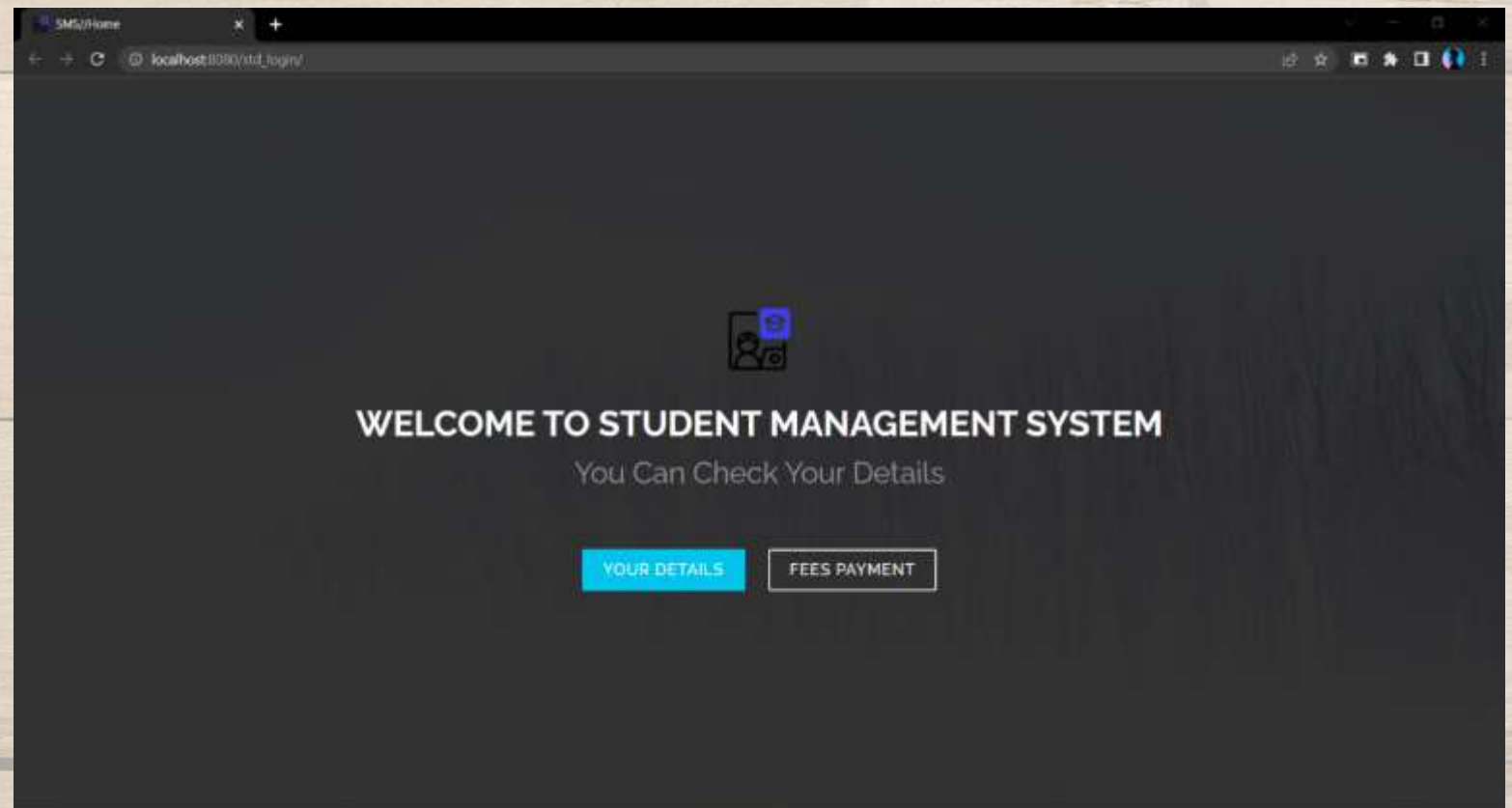
☐ JS

☐ CSS

☐ Html

☐ Jdbc

JDK provide a rock solid support





login page

☐ Students login.

☐ Username should be “email/roll”.

☐ Password should be phone number.

Student Login

Username

Password

LOGIN

[Forgot Username / Password?](#)

[Click for Some FAQ](#)



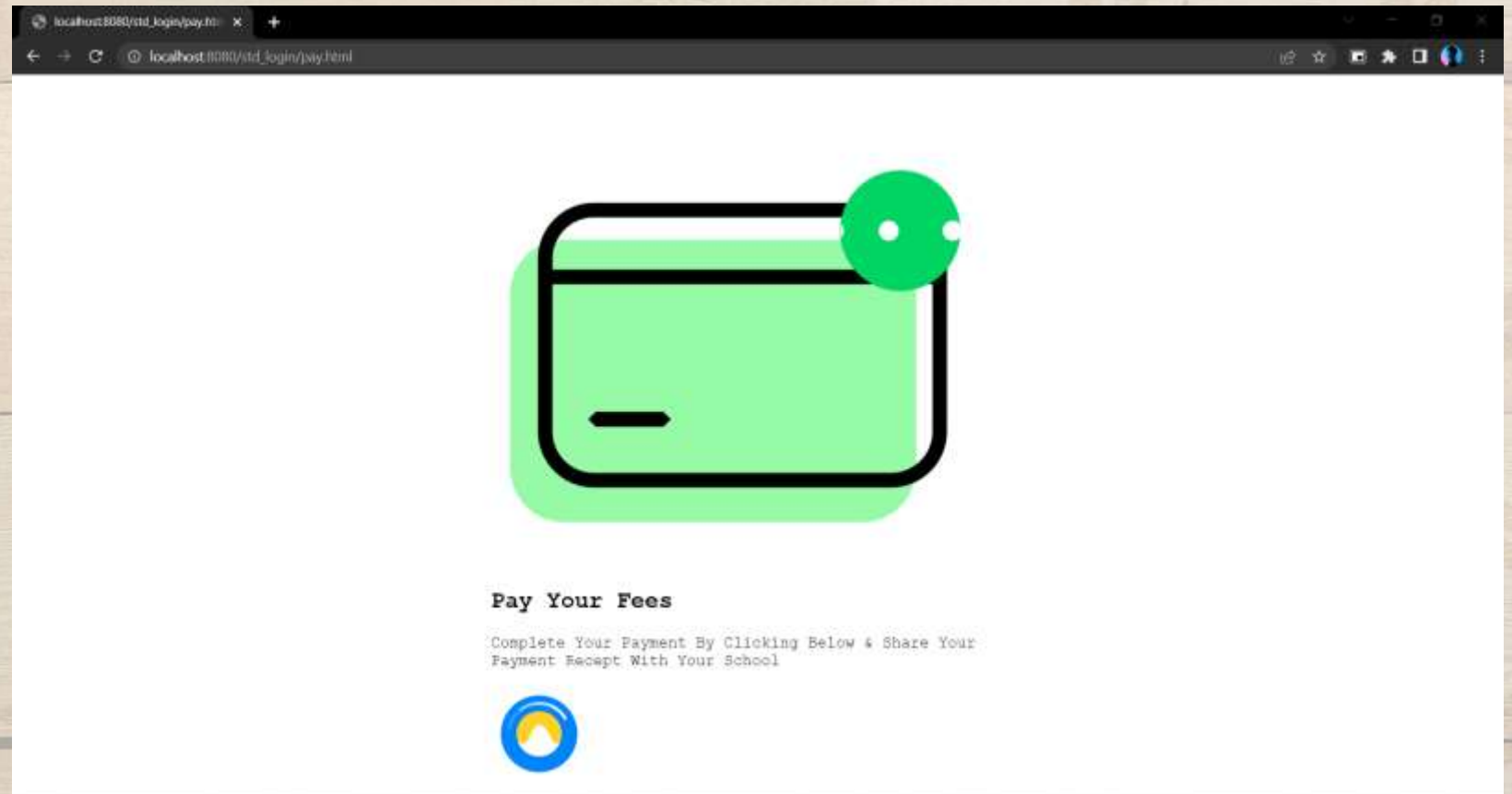
about page

- ❑ Students information is available when the student successfully login.



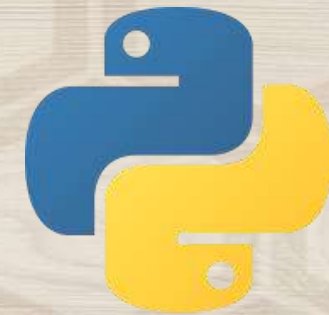
payment page

- ☐ Students can pay fees online,
- ☐ A payment gateway or upi gateway will be added in future ,



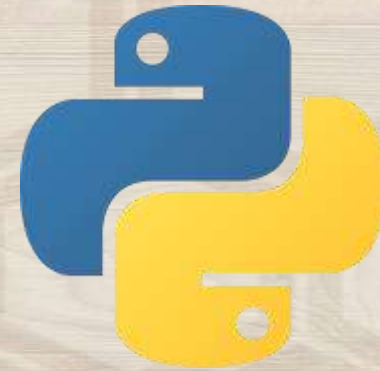
Conclusion

The results obtained from the experiments and testing ensures that the proposed method is efficient and user-friendly. As compared to existing methods of managing the academic institutions, this project which yields centralized software makes the work administration and management easier and provides detailed information about the topic of user's interest in just one mouse click.



Future Scope

- The Student Management System (SMS) can be enhanced to include some other functionality like online sick leave approve, attendance management.
- Talent management of students based on their performance evaluation can be added.
- Social networking can also be added wherein students can interact with each other.
- Online class functionality can be added.
- Can evolve as an online institution.
- Functionality of chat and messages can be added.
- Online exam functionality can be added.
- Online resume builder functionality can also be added.



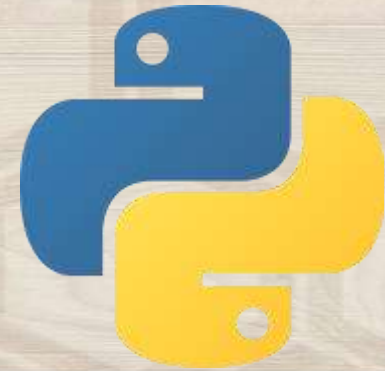
Bibliography

Books:

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- Tkinter GUI Programming by Example (by David Love)
- HTML & CSS: Design and Build Web Sites (by Jon Duckett)
- You Don't Know JS: Scope & Closures (by Kyle Simpson)

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- <https://jrsoftware.org/isdl.php>
- <https://animate.style/>



The End
Thankyou

