ABSTRACT

This project titled “College Fee Payment Record System” is a web-based application developed using Python Flask. The system automates fee management by recording student details, tracking payments, calculating balance fees, and generating analytical charts. The system provides features such as student registration, payment updates, fee visualization, and administrative login. The project makes use of CSV file handling, Pandas for data processing, and Matplotlib for visual report generation.

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1. INTRODUCTION

The College Fee Payment Record System is designed to simplify and automate the process of fee management in educational institutions. It maintains student records, fee details, payment history, and generates insightful charts for administrators.

2. PROBLEM STATEMENT

Manual fee management systems are error-prone, time-consuming, and lack analytical insights. There is a need for a system that can automate fee recording, provide real-time updates, and generate visual representations for easy understanding.

3. OBJECTIVES

- To automate student fee management.
- To store and manage student data and payment history.
- To calculate balance fees automatically.
- To generate graphical analytics for fee collection.
- To provide a secure login-based admin control.

4. EXISTING SYSTEM

The existing system uses manual entry methods or basic spreadsheets for fee management. These methods lack security, automation, and analytical capabilities.

5. PROPOSED SYSTEM

The proposed system digitizes fee record-keeping using Python Flask. It offers a dashboard, dynamic charts, student record management, and a secure login system.

6. SYSTEM REQUIREMENTS

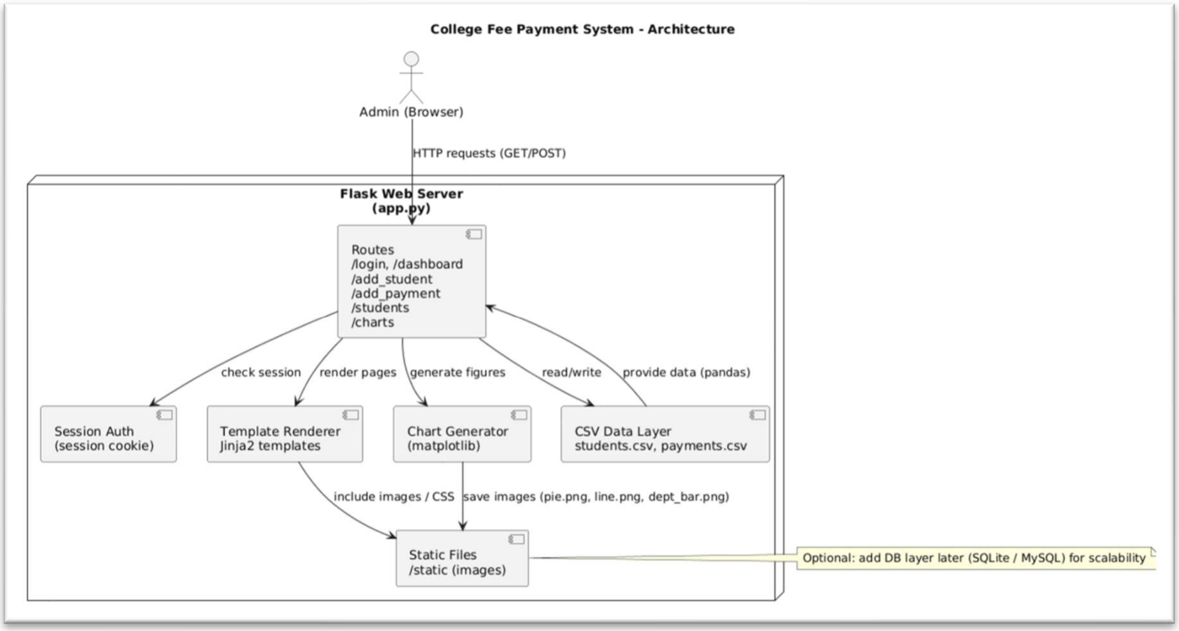
Software Requirements:

- Python 3.x
- Flask
- Pandas
- Matplotlib
- HTML/CSS/Bootstrap

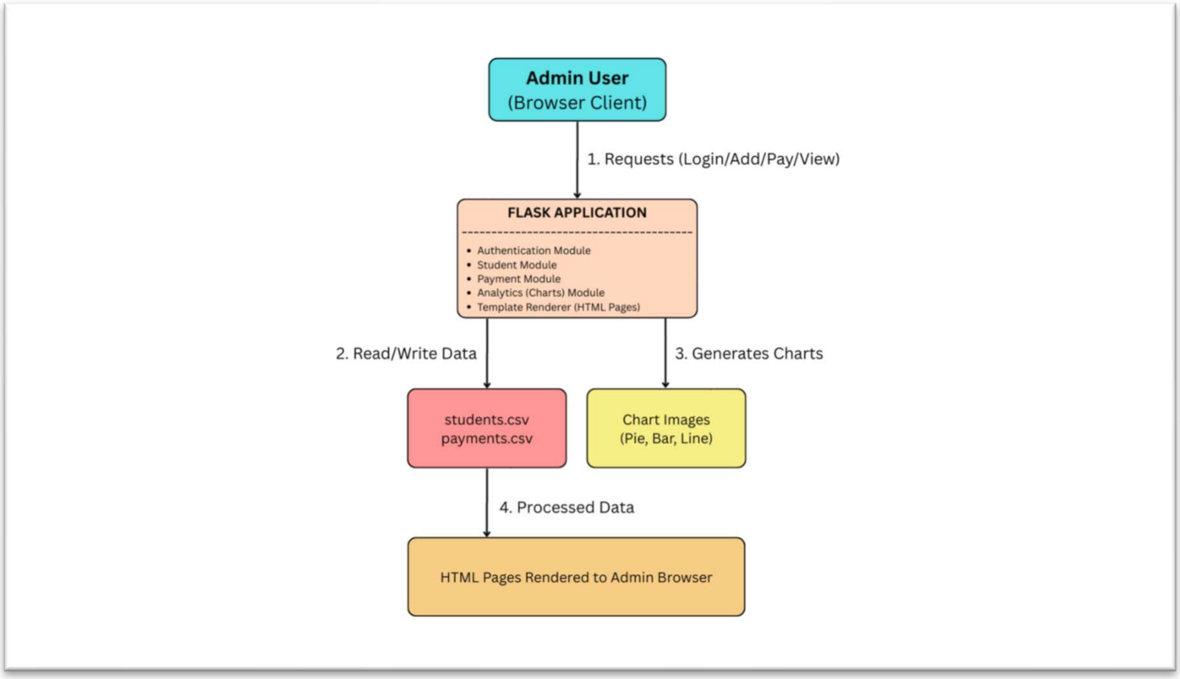
Hardware Requirements:

- Minimum 4GB RAM
- Standard CPU
- Any OS supporting Python

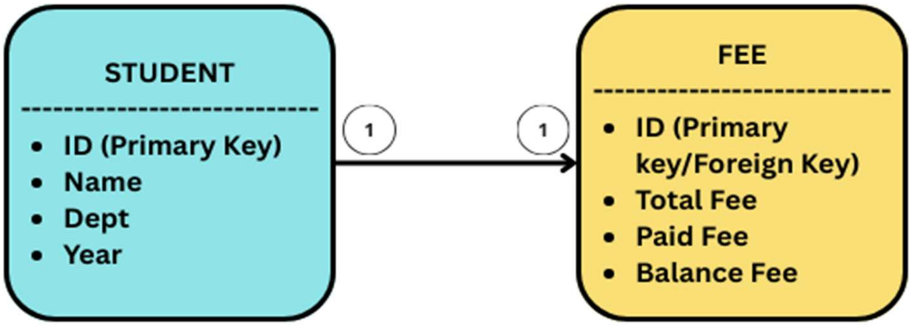
7. SYSTEM ARCHITECTURE



8. DATA FLOW DIAGRAM



9. ER DIAGRAM



10. ALGORITHMS

Algorithm: Fee Update

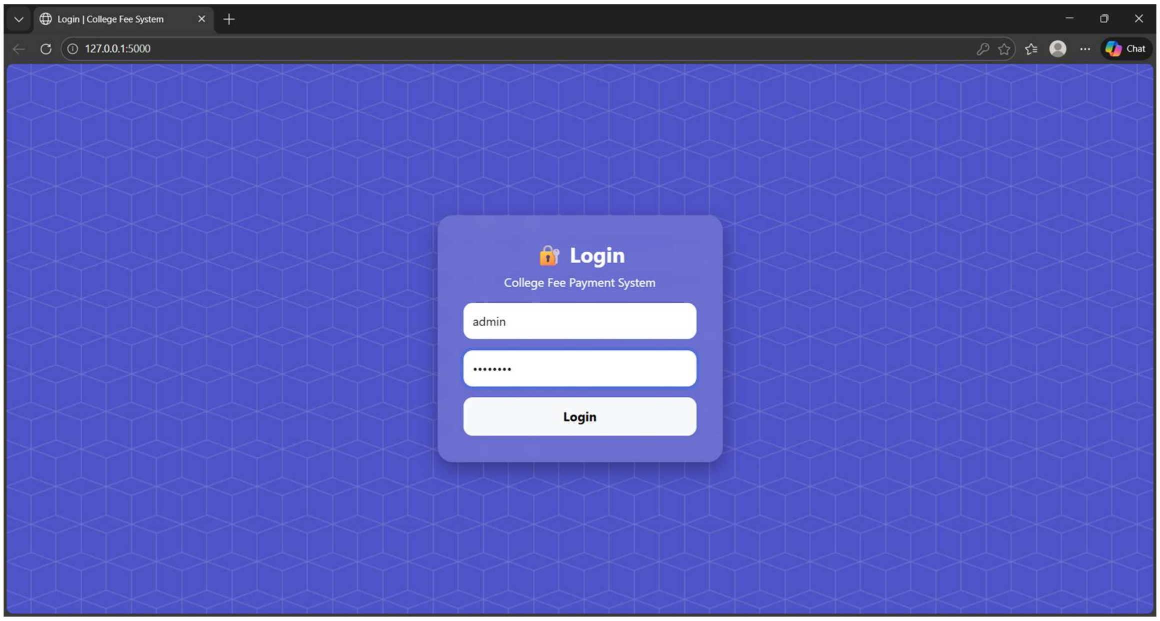
1. Input Student ID
2. Verify ID
3. Add Payment Amount
4. Update CSV
5. Recalculate Balance

11. IMPLEMENTATION

The system is implemented using Python Flask with HTML/CSS frontend.

12. SCREENSHOTS

- **LOGIN PAGE**



admin

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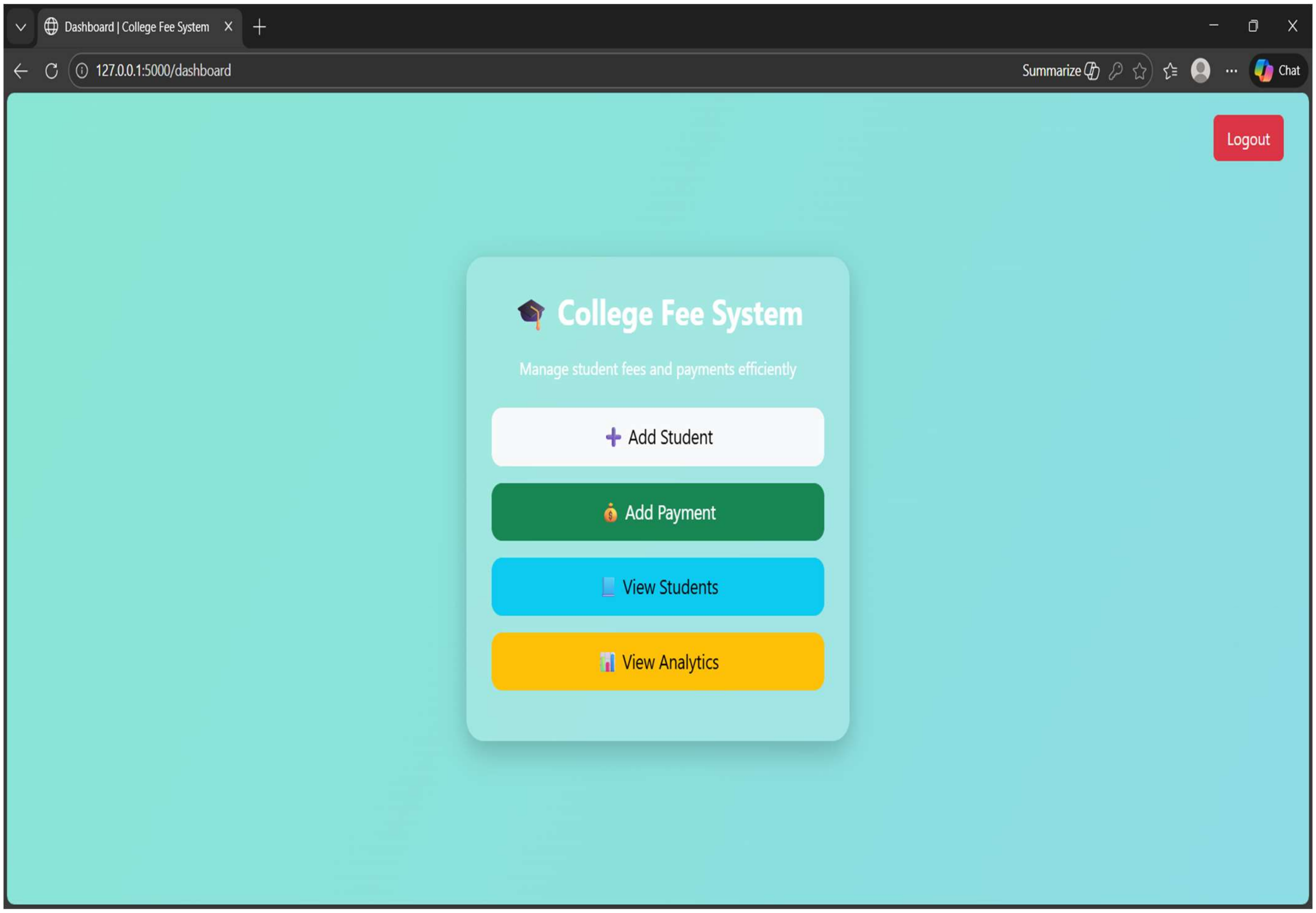
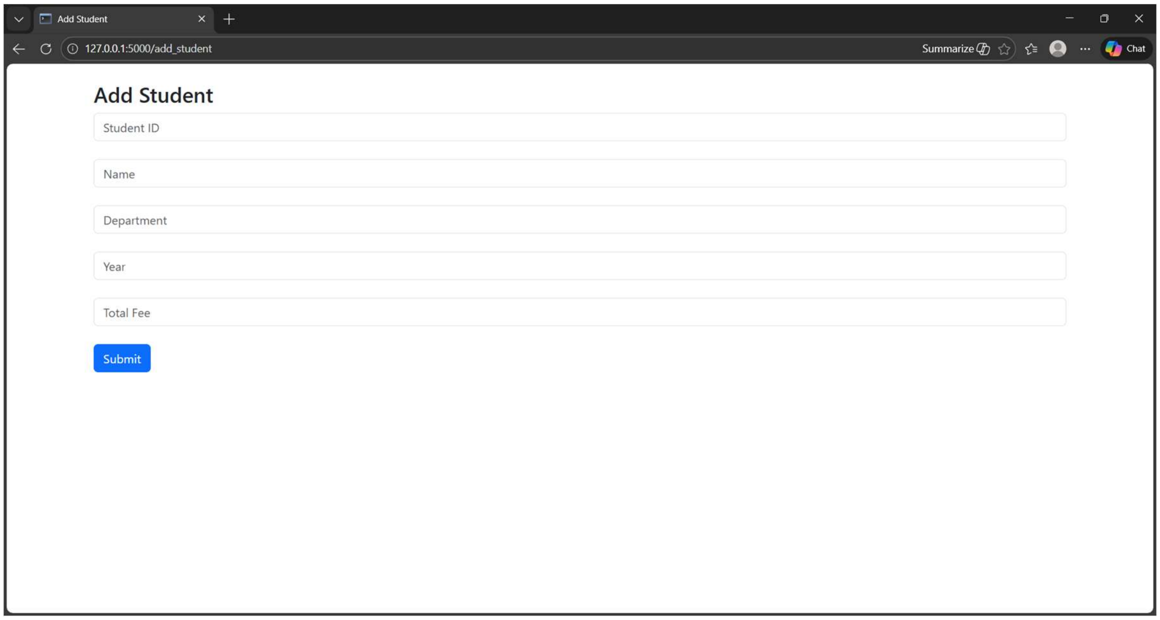
- **HOME PAGE**



College Fee System

Manage student fees and payments efficiently

- **INSERTING STUDENT DETAILS**



Add Student

Student ID

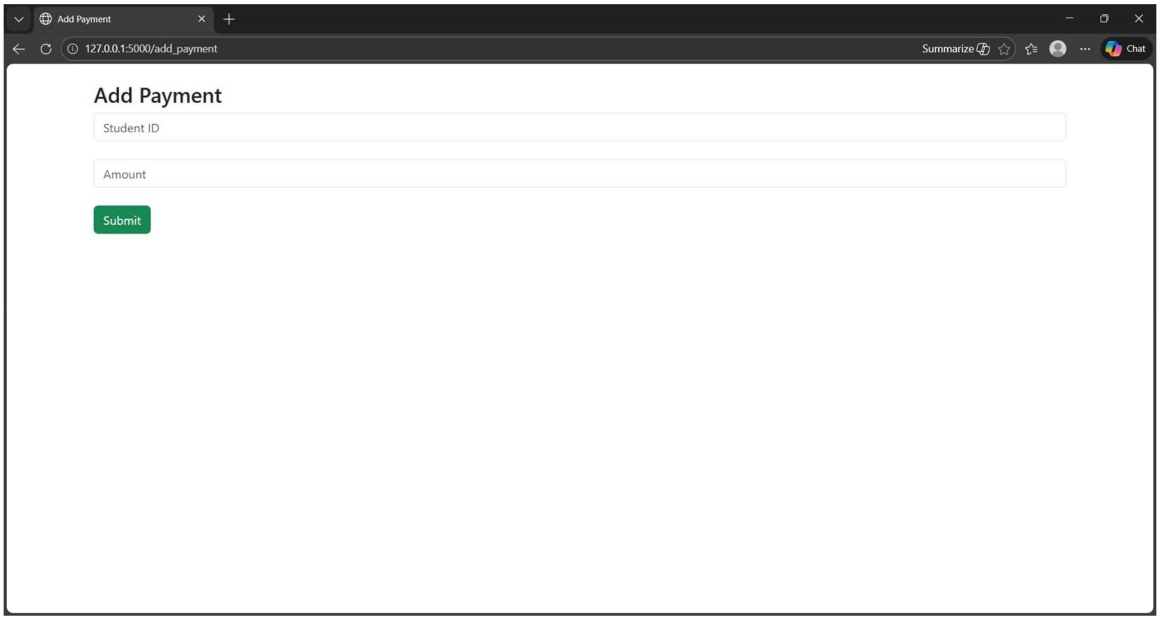
Name

Department

Year

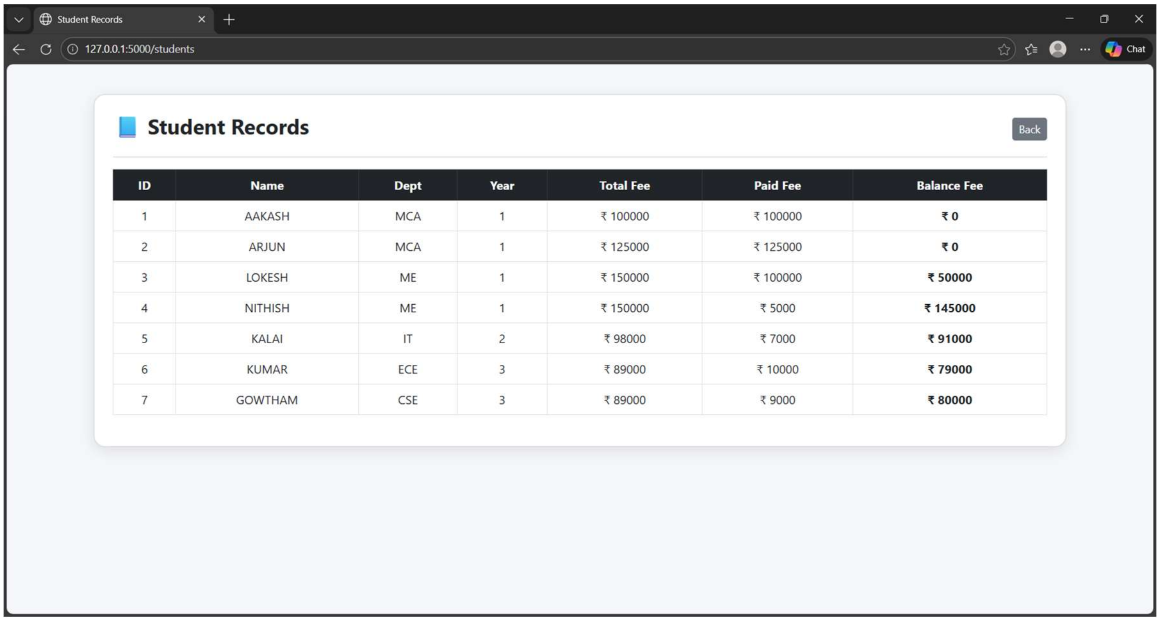
Total Fee

- **PAYMENT DETAILS ADDING**



Add Payment

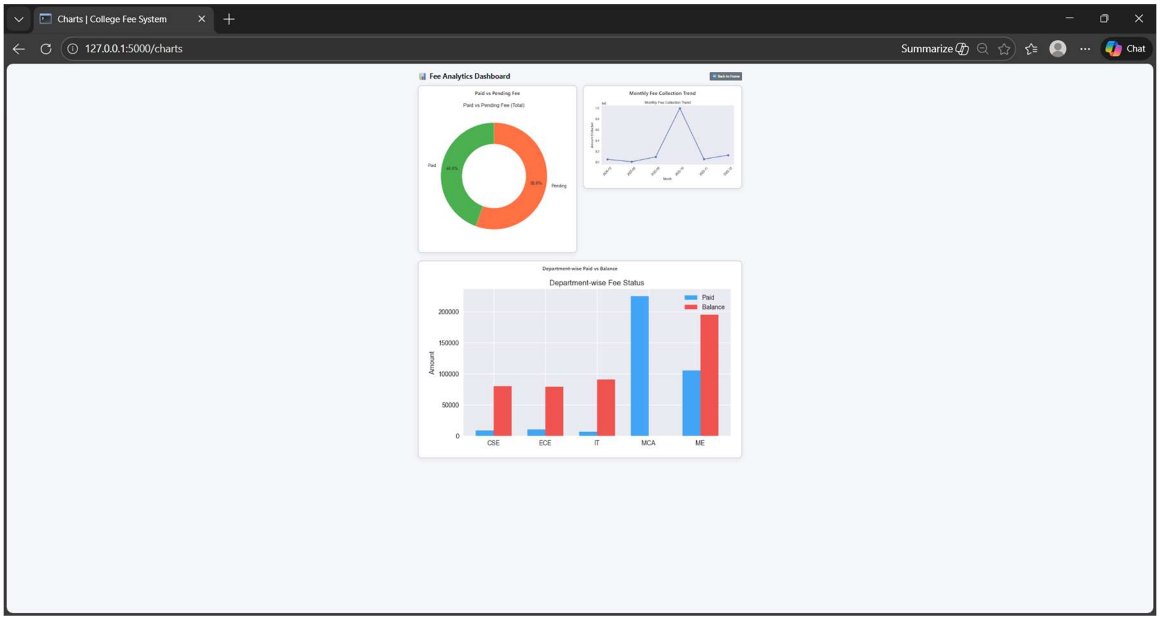
- **STUDENT RECORDS**



📘 Student Records

ID	Name	Dept	Year	Total Fee	Paid Fee	Balance Fee
1	AAKASH	MCA	1	₹ 100000	₹ 100000	**₹ 0**
2	ARJUN	MCA	1	₹ 125000	₹ 125000	**₹ 0**
3	LOKESH	ME	1	₹ 150000	₹ 100000	**₹ 50000**
4	NITHISH	ME	1	₹ 150000	₹ 5000	**₹ 145000**
5	KALAI	IT	2	₹ 98000	₹ 7000	**₹ 91000**
6	KUMAR	ECE	3	₹ 89000	₹ 10000	**₹ 79000**
7	GOWTHAM	CSE	3	₹ 89000	₹ 9000	**₹ 80000**

- **VISUALIZATIONS / ANALYTICS**



13. TESTING

Manual testing was done for all modules to ensure proper functionality.

14. CONCLUSION

The system successfully automates fee management and provides real-time analytics, improving administrative efficiency.

15. FUTURE ENHANCEMENT

Future enhancements include online payment integration, mobile app support, and cloud-based database migration.

16. REFERENCES

- Python Documentation
- Flask Documentation
- Pandas Documentation
- Matplotlib Documentation