VISVESVARAYA TECHNOLOGICAL UNIVERSITY - BELAGAVI

S. S. Education Trust's

S.G Balekundri Institute of Technology

Shivabasava Nagar Belagavi, Karnataka, India – 590010

Accredited by NBA

Department of Computer Science and Engineering

Project Work Phase 2

ERP For Student Internal Marks

Guide Name:

Name: Prof Ms. Kangana W. M.

Designation:

Students Name:

Ms. Sakshi Kulkarni (2BU22CS129)

Mr. Satish Lankennavar (2BU22CS134)

Mr. Shivarudra Doddamani (2BU22CS142)

Mr. Vishal Vaddar (2BU22CS186)

Outline

- Introduction
- Literature Review
- Problem Statement
- Objectives
- Requirement Specification
- Proposed Architecture
- Design Modules
- Design Diagrams (DFD, Class, Use-case, etc.)
- Results
- Conclusion and Future Enhancements
- References
- Work Contribution

Introduction

- Effective management of students' internal marks is vital for academic institutions, as traditional manual systems often result in errors, inefficiencies, and delays.

- Integrating an ERP system tailored for educational institutions addresses these challenges by providing a technology-driven solution.

- This project develops a web-based ERP system using DBMS to create a centralized platform for managing and accessing internal marks efficiently for faculties, administrators, and students.

Literature Survey

S.NO	AUTHORS /YEAR	TITLE	OBSERVATIONS
1			
2			
3			
4			

S.NO	AUTHOR S/YEAR	TITLE	OBSERVATIONS
5			
6			
7			
8			
9			

Problem Statement

- **Inefficient Manual Processes:** Current methods for managing internal marks are error-prone, time-consuming, and lack standardization, causing delays in reporting and decision-making.

- **Data Management Challenges:** The absence of a centralized database leads to difficulties in maintaining, updating, and retrieving marks, risking data loss or inconsistencies.

- **Scalability and Reporting Limitations:** Existing systems cannot effectively handle larger student populations or provide comprehensive analytics for monitoring performance trends and improvements.

Objectives

- **Centralized Data Management:** Implement a unified platform to store, manage, and retrieve students' internal marks efficiently, ensuring data consistency and accessibility.

- **Real-time Updates:** Enable real-time entry, modification, and updating of marks, ensuring timely communication of academic performance to students, teachers, and administrators.

- **Secure Access Control**: Provide role-based access to ensure that only authorized personnel (teachers, administrators) can view and edit specific data.

Requirement Specifications

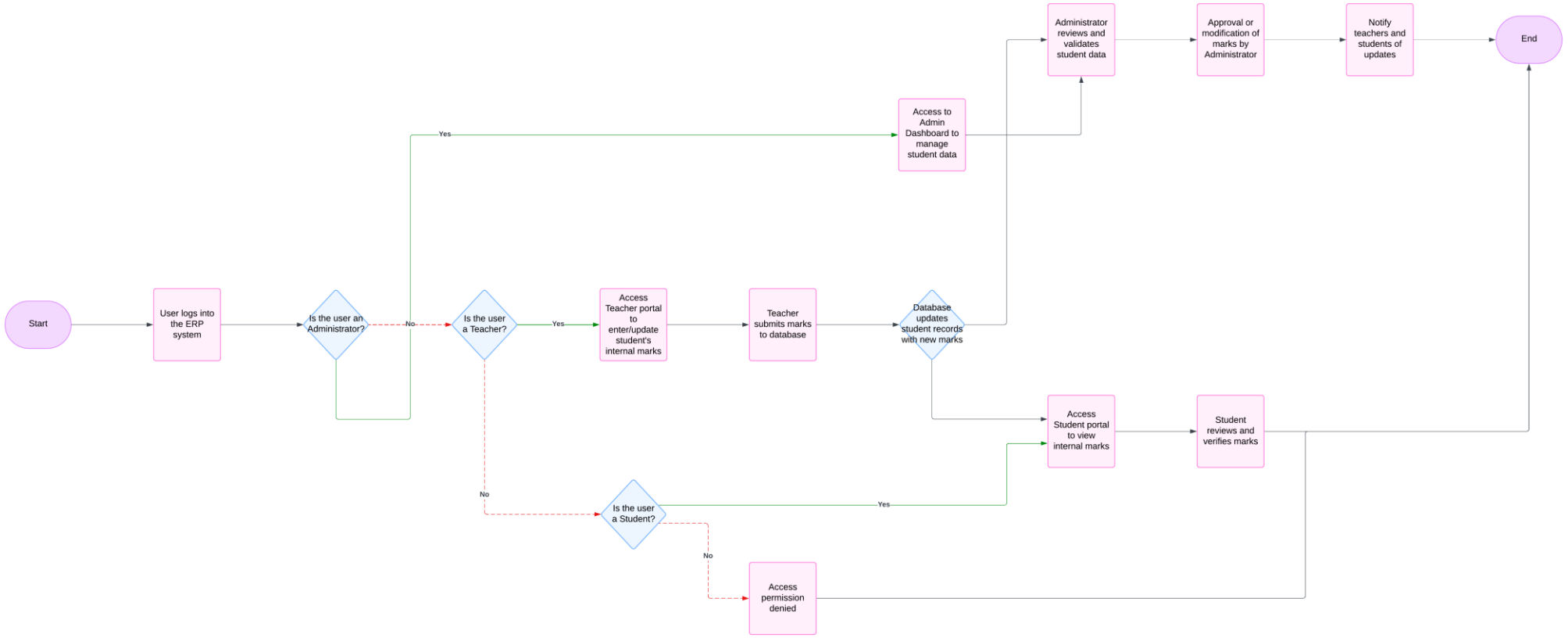
Functional Requirements

- Login and authentication for users (students, teachers, administrators).
- Role-based access to enter, view, and modify marks.
- Automated calculation of internal marks.
- Generation of reports for individual students and batches.

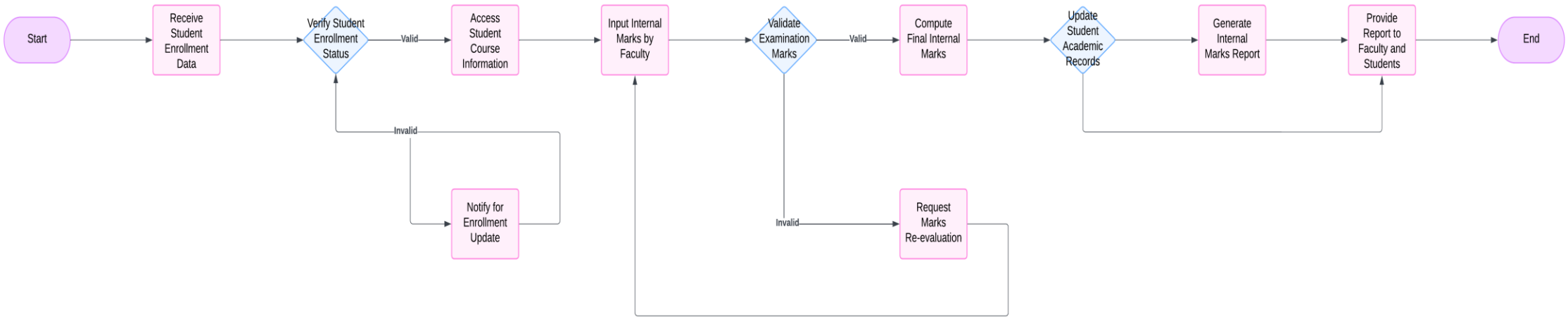
Non-Functional Requirements

- High performance to handle multiple concurrent users.
- Data security through encryption and role-based access.
- Scalability to support additional users and functionalities.
- Reliability with minimal downtime.

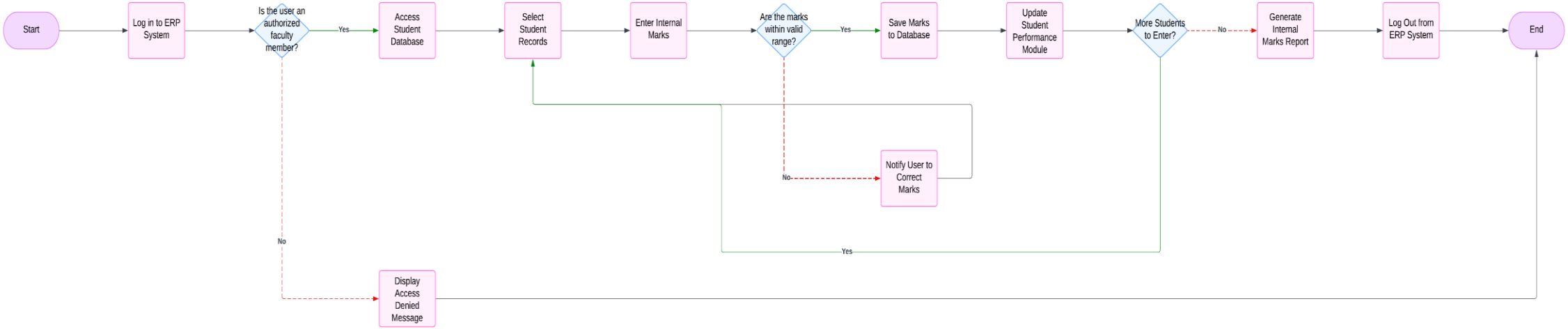
Proposed Architecture Diagram



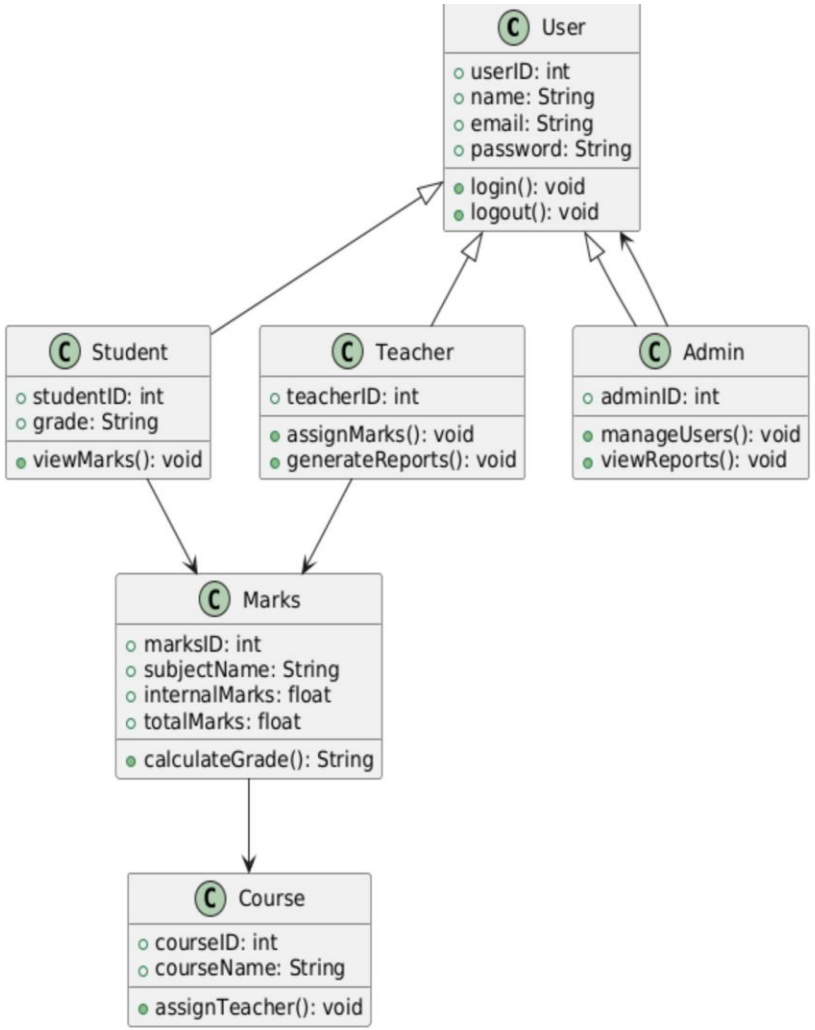
Data Flow Diagram level 1



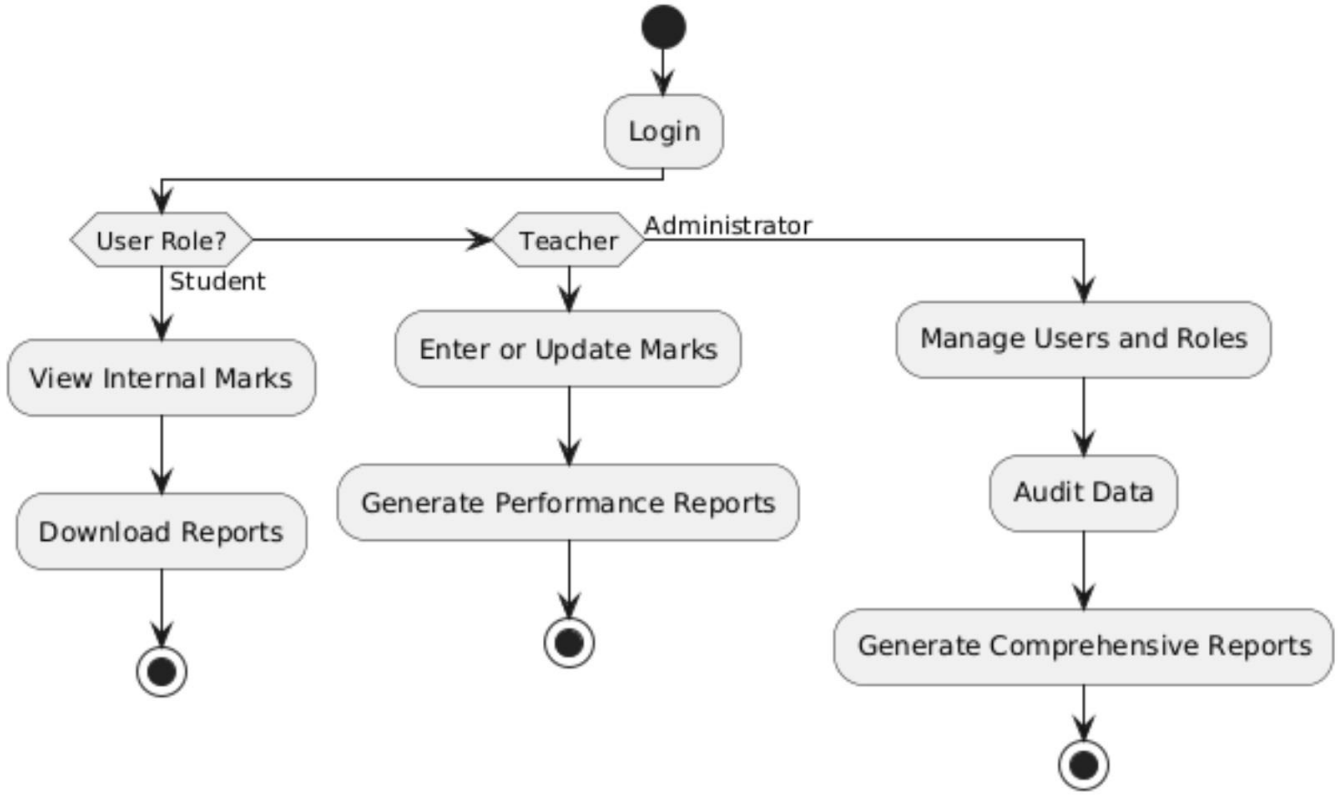
Data Flow Diagram level 2



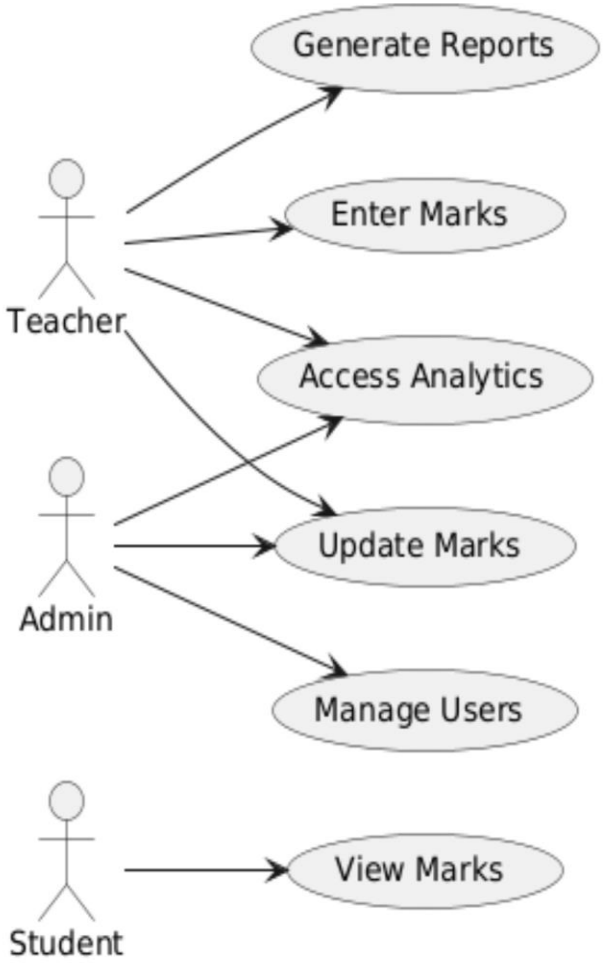
Class Diagram



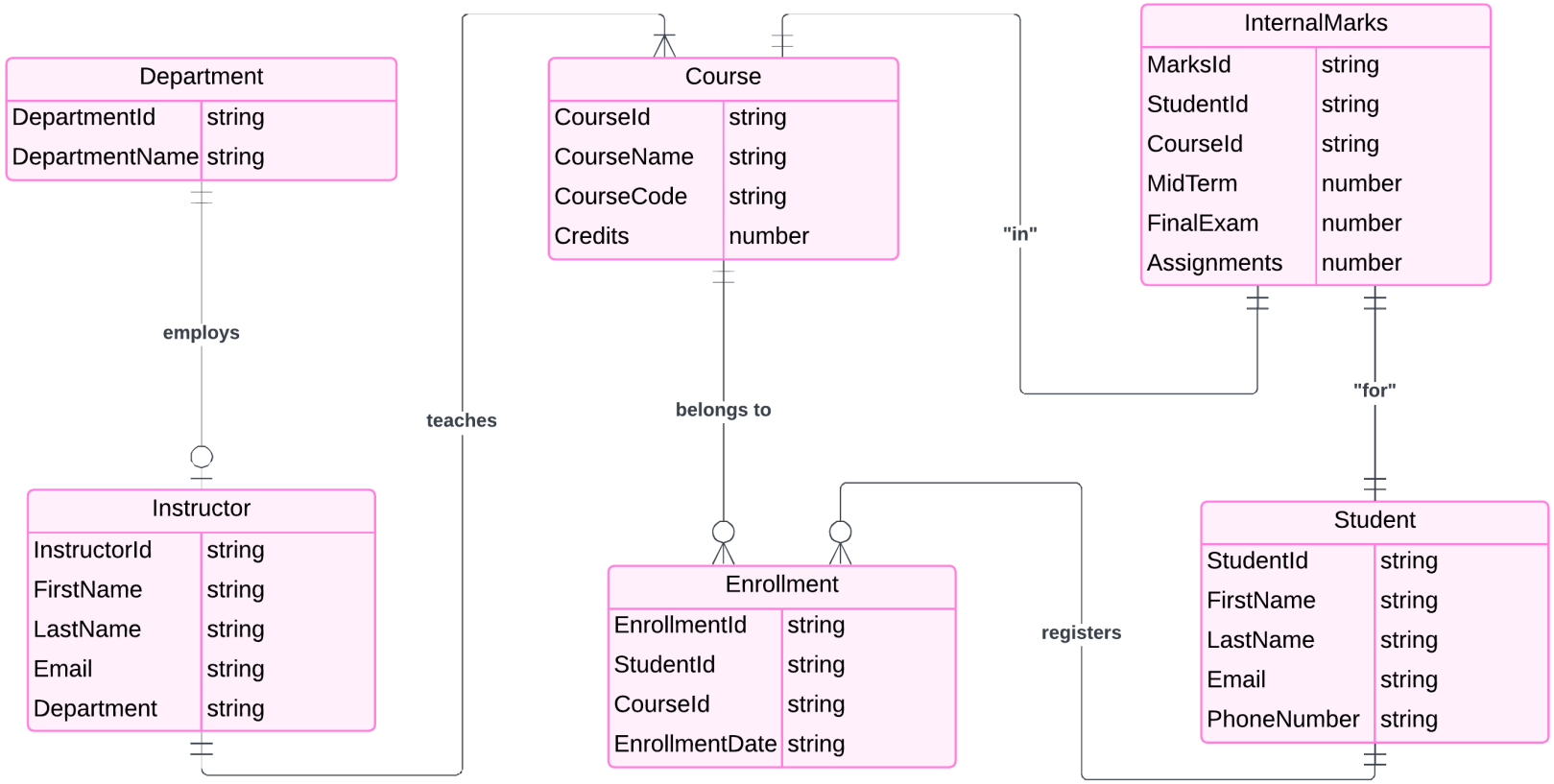
Activity Diagram



Use-Case Diagram



Database Diagram



Results

- Accurate and automated internal marks management.
- Reduced workload for teachers and administrative staff.
- Improved accessibility and transparency for students.

Outcome Snapshots

Conclusion

- The ERP system streamlines the recording and management of student internal marks, enhancing accuracy, efficiency, and accountability in academic evaluations.

- Real-time access to performance data and reporting tools fosters proactive engagement among teachers and students, creating a collaborative learning environment.

- Scalability through DBMS and web technologies ensures adaptability to evolving educational needs and standards.

Future Enhancement

- Integration with learning management systems (LMS).
- Predictive analytics to identify student performance trends.
- Mobile application for easier access.

Refences

- Oracle NetSuite
- SoftwareSuggest
- GeeksforGeeks
- W3Schools
- Lucidchart

THANK YOU