Anekant Education Society's

Tuljaram Chaturchand College of Arts, Science and Commerce, Baramati

(Empowered Autonomous)

Department of Computer Science

A

PROJECT REPORT

ON

"Test System For Collage"

Submitted to Savitribai Phule Pune University,

Pune. For T.Y.B.Sc.(Comp.Sci.) By :

Mane Omkar Dhondiram (Roll No. 12521)

UNDER THE GUIDANCE OF

Assist. Prof. Abhijeet Mankar.

Academic Year : 2024 – 2025

Anekant Education Society's

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CERTIFICATE

This is to certify that the project entitled "**Test System For Collage** "submitted by Gawade Om Dnyandev as a part of UCSCO368 Laboratory Course-II in partial fulfillment of the requirement of the award of degree B.Sc.(Comp.Sci.) to Savitribai Phule Pune University, Pune has been carried out by them under my guidance satisfactorily during the academic year 2024-2025.

Date:

Project Guide	Internal Examiner	External Examiner	Head Computer Science Dept

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Problem Definition:

In many hospitals and clinics, managing patient appointments manually is inefficient, time-consuming, and prone to errors. Traditional appointment booking methods, such as walk-in registrations and phone calls, often result in double bookings, long wait times, scheduling conflicts, and data inconsistencies. Additionally, the lack of a structured system makes it difficult to track patient history, manage doctor availability, and handle payments efficiently.

To address these challenges, our Hospital Appointment Booking System is developed using PHP and PostgreSQL, offering a fully digital, automated, and user-friendly platform for both patients and hospital administrators.

Key Features & Benefits

- **Student Performance Tracking** – Displays students' test scores based on subject and marks range.
- **Subject & Marks Filtering** – Users can filter results using a dropdown for subjects and marks range.
- **User-Friendly Interface** – Clean and responsive UI with a sidebar navigation menu.
- **Dynamic Report Generation** – Fetches real-time data from the database based on user selections.
- **Comprehensive Test Reports** – View test type-wise (Internal & External) reports.

Scope of System:

The **Test System for College** is designed to streamline the process of managing student test records, ensuring accuracy and efficiency in academic evaluation. This system enables educational institutions to record, retrieve, and analyze student performance across various subjects and test types.

The primary scope of the system includes **student test management**, allowing for the entry and storage of test scores along with details such as subject, test type, test date, and the teacher responsible

Key Functionalities

* **Appointment Scheduling**
  - Patients can book, reschedule, or cancel appointments via an intuitive web interface.
  - Doctors and administrators can approve or decline appointment requests.
* **Time Slot Management**
  - Real-time availability of doctor slots to prevent scheduling conflicts.
  - Doctors can set their available working hours and holidays.
  - The system ensures that appointments do not exceed the maximum patient capacity per slot.
* **Reports & Analytics**
  - Admins and doctors can generate reports to track hospital performance.
  - View appointment trends, patient statistics, and revenue insights for better decision-making.
  - Helps optimize hospital operations by analyzing peak appointment times.

User Roles & Access

Teachers: Can enter and update test scores for students in their assigned subjects.
Administrators: Has access to all reports and system settings for data integrity and security.
Student: Can view their own test results and performance reports.

System Requirement :

1. Hardware Requirements :
    - Processor: Intel Core i3 (or equivalent)
    - RAM: 2GB (Minimum), 4GB (Recommend)
    - Storage : 500MB free space
2. Software Requirements :
    - Operating System: Windows 10, Linux, macOS
    - Java Runtime Environment (JRE): JDK 15 or later
    - Database: MySQL 5.6 or MySQL 8+
    - Display Resolution: 1366 x768

Feasibility Study :

The **feasibility study** evaluates whether the **Test System for College** is practical and viable for implementation. It covers key aspects such as technical, operational, and economic feasibility.

1. Technical Feasibility

- The system is built using **PHP and MySQL**, which are widely used and easy to integrate.
- Requires a **web server (XAMPP, WAMP, or online hosting)** to operate efficiently.
- Can be accessed through **browsers** on desktops, laptops, and mobile devices.
- No advanced hardware or software is required, making it a **low-cost** solution.

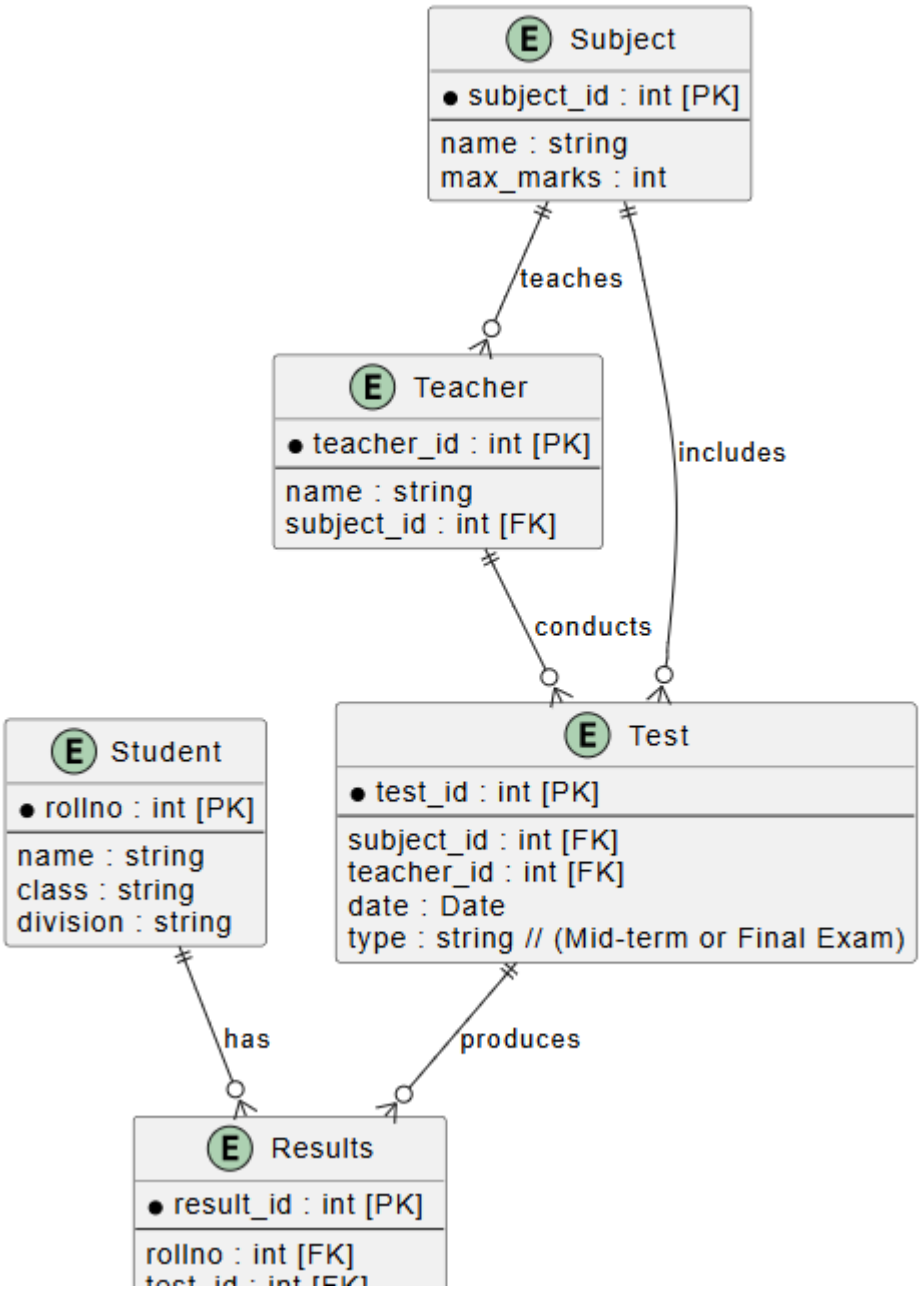
2. Operational Feasibility

- Simplifies test management by allowing teachers to **enter and update test scores** efficiently.
- Generates **performance reports** based on subject, test type, and marks.
- Reduces paperwork and manual errors, improving the **accuracy** of student records.
- Users (Admin, Teachers, and Students) find it **easy to use** due to an intuitive interface.

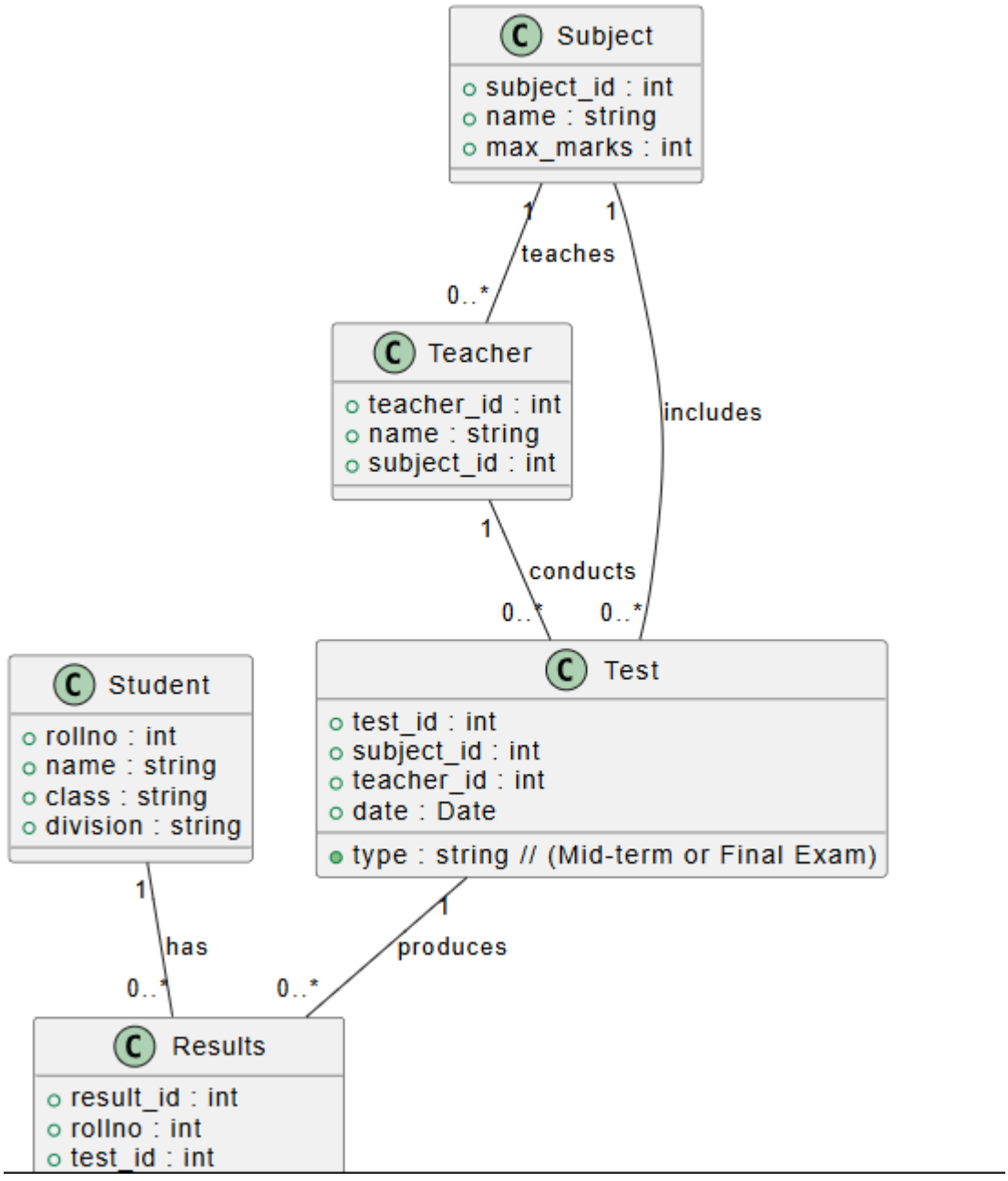
3. Economic Feasibility

- The system is **cost-effective**, as it requires minimal investment in infrastructure.
- Eliminates the need for **paper-based record-keeping**, reducing operational costs.
- Saves teachers' time by automating test record management, leading to **better efficiency**.
- The return on investment (ROI) is high due to **improved academic performance tracking**.

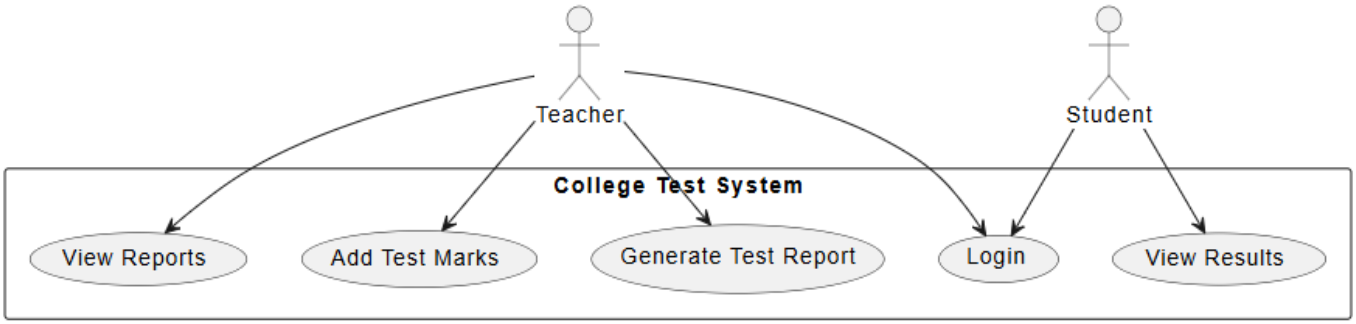
E-R Diagram :


Subject
subject_id : int [PK]
name : string
max_marks : int
teaches
includes
Teacher
teacher_id : int [PK]
name : string
subject_id : int [FK]
conducts
Test
test_id : int [PK]
subject_id : int [FK]
teacher_id : int [FK]
date : Date
type : string // (Mid-term or Final Exam)
Student
rollno : int [PK]
name : string
class : string
division : string
has
produces
Results
result_id : int [PK]
rollno : int [FK]

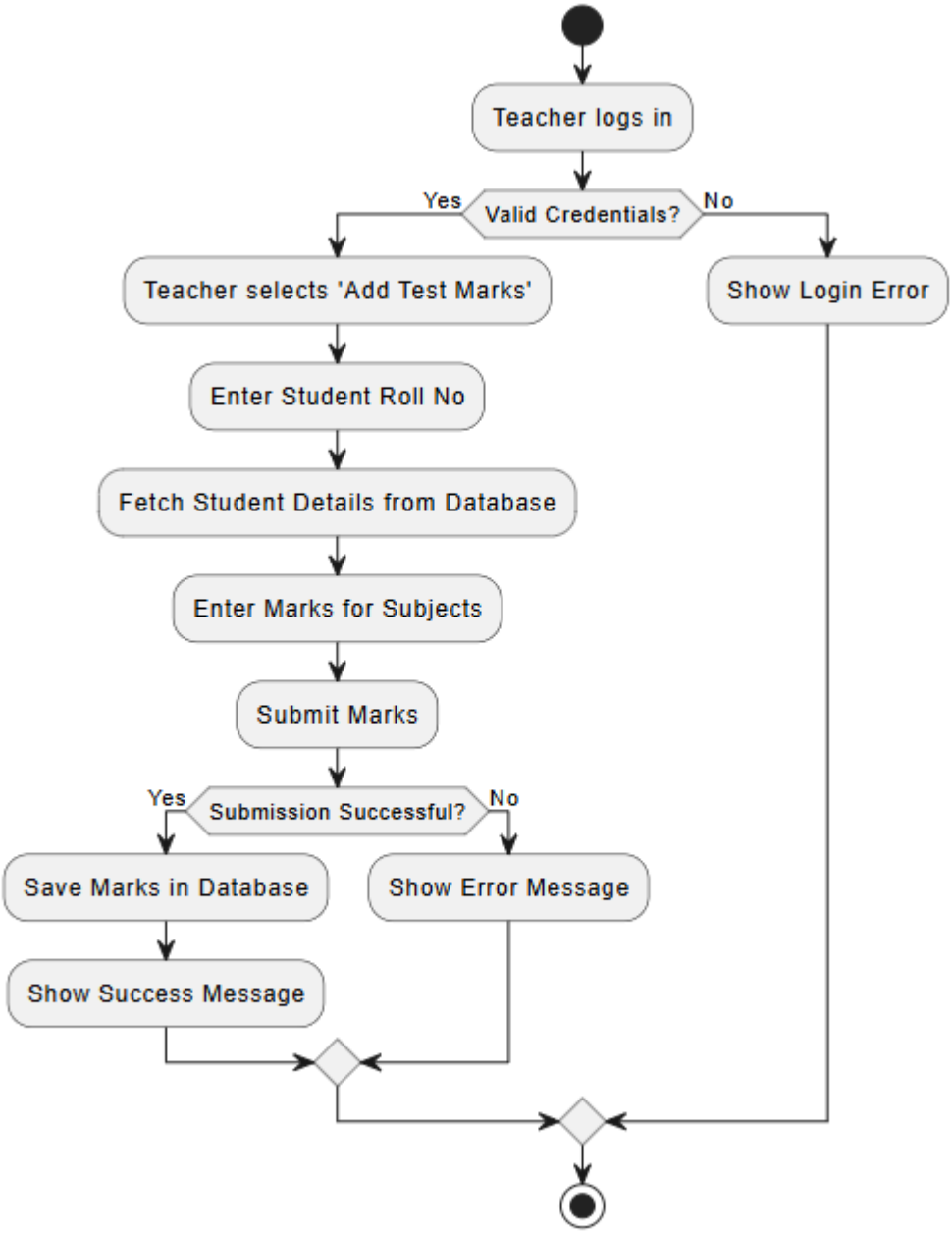
Class Diagram :



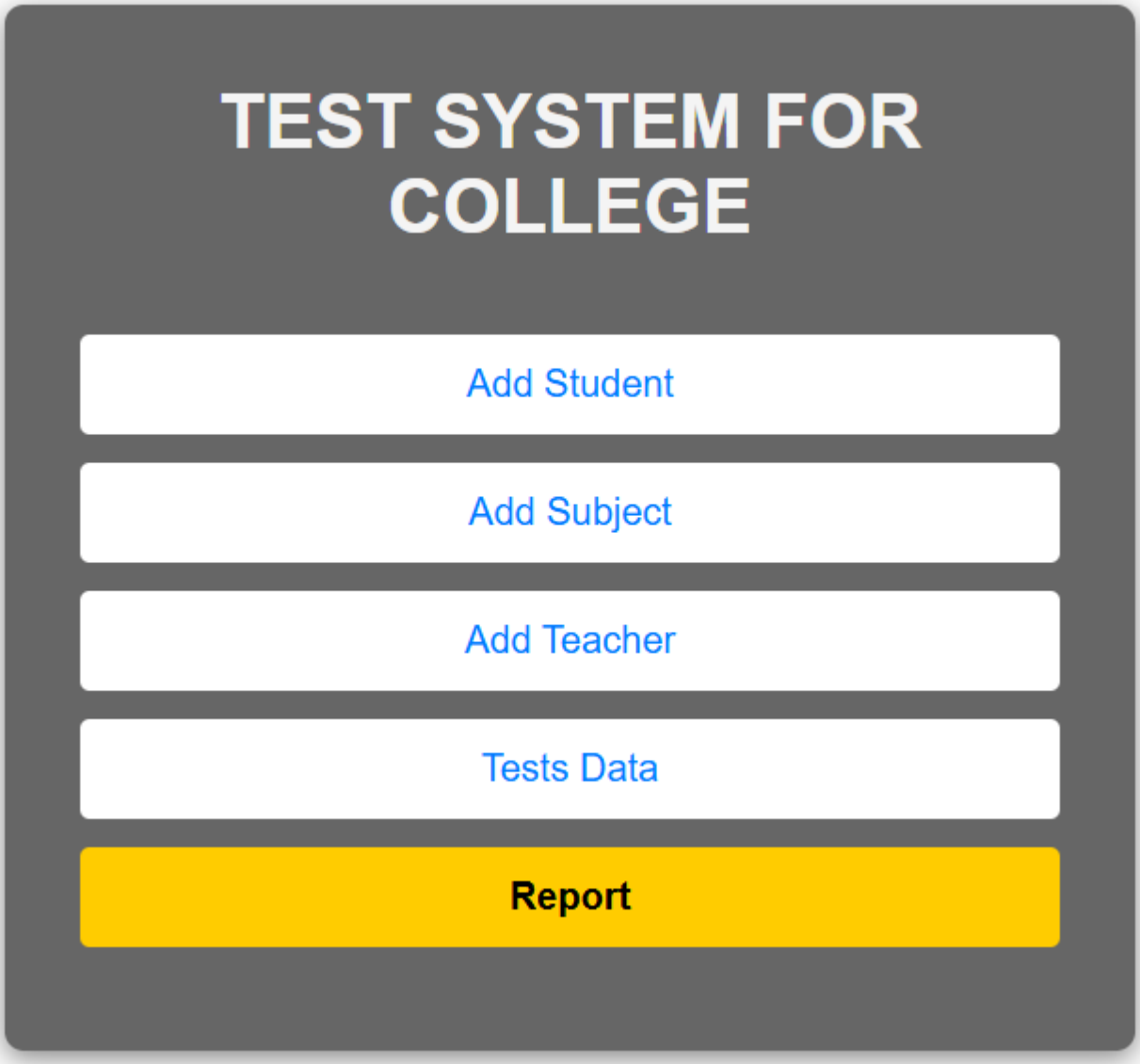
Use Case Diagram :



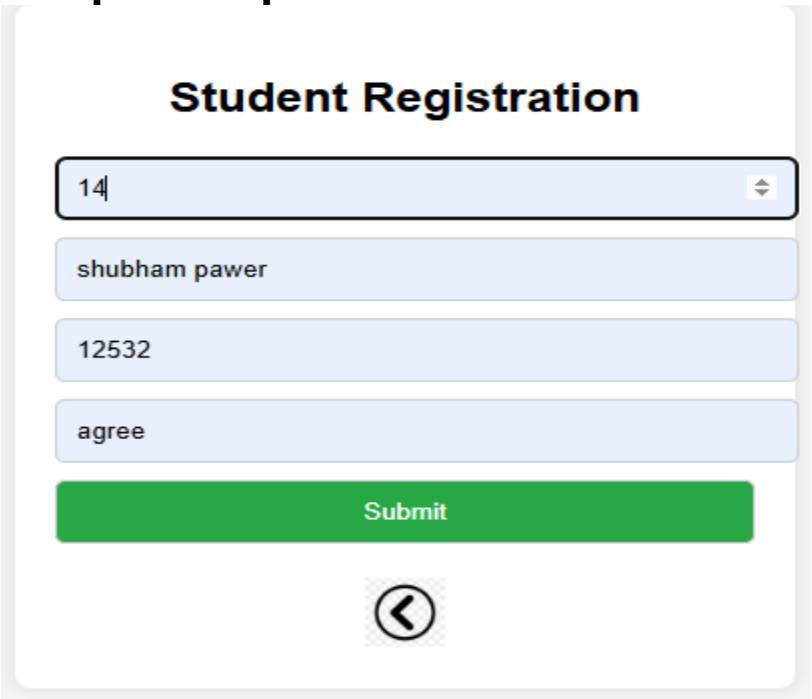
Activity Diagram:

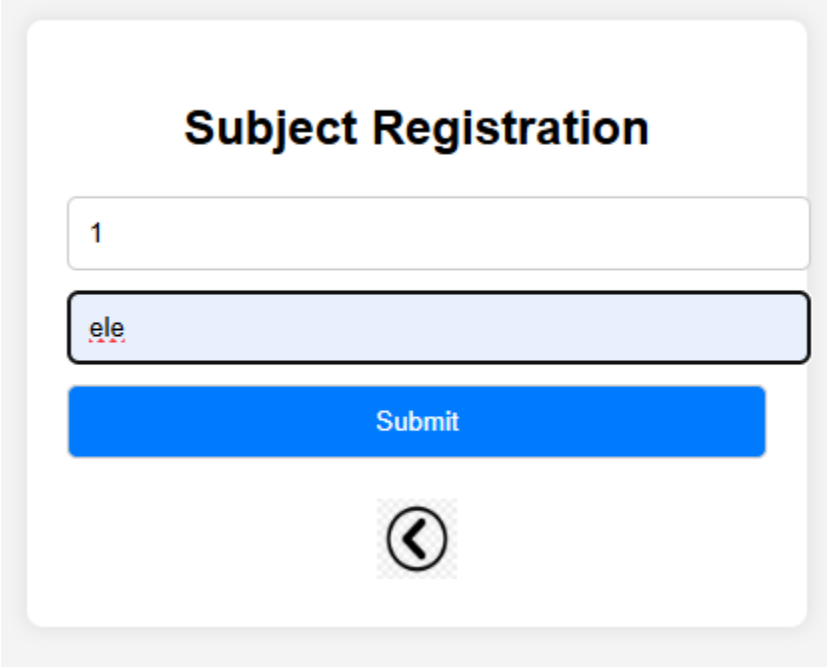


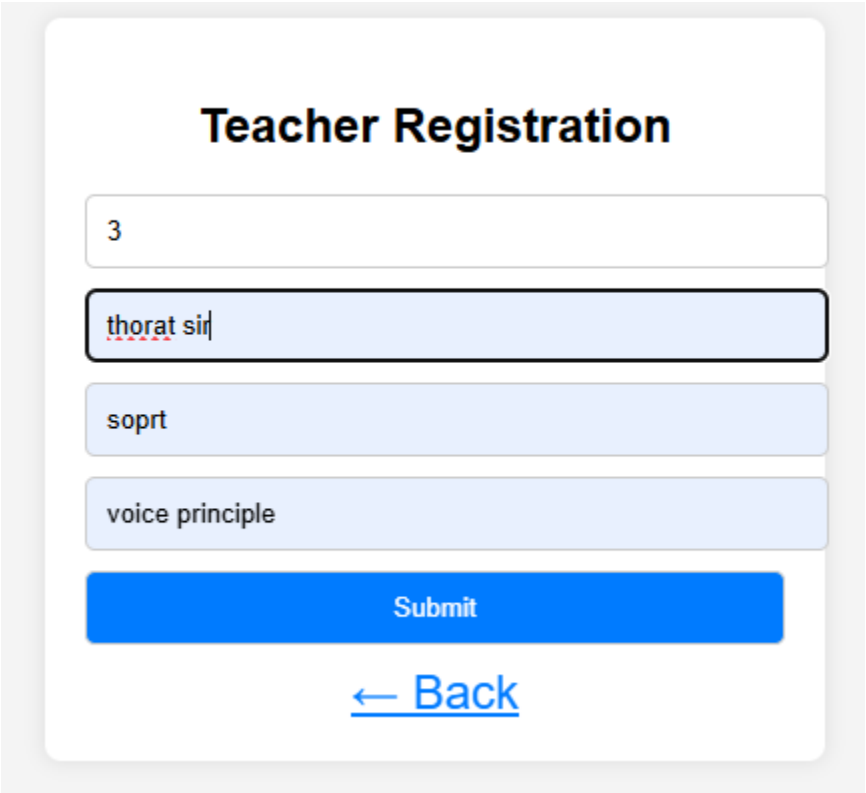
Input Output Screens :

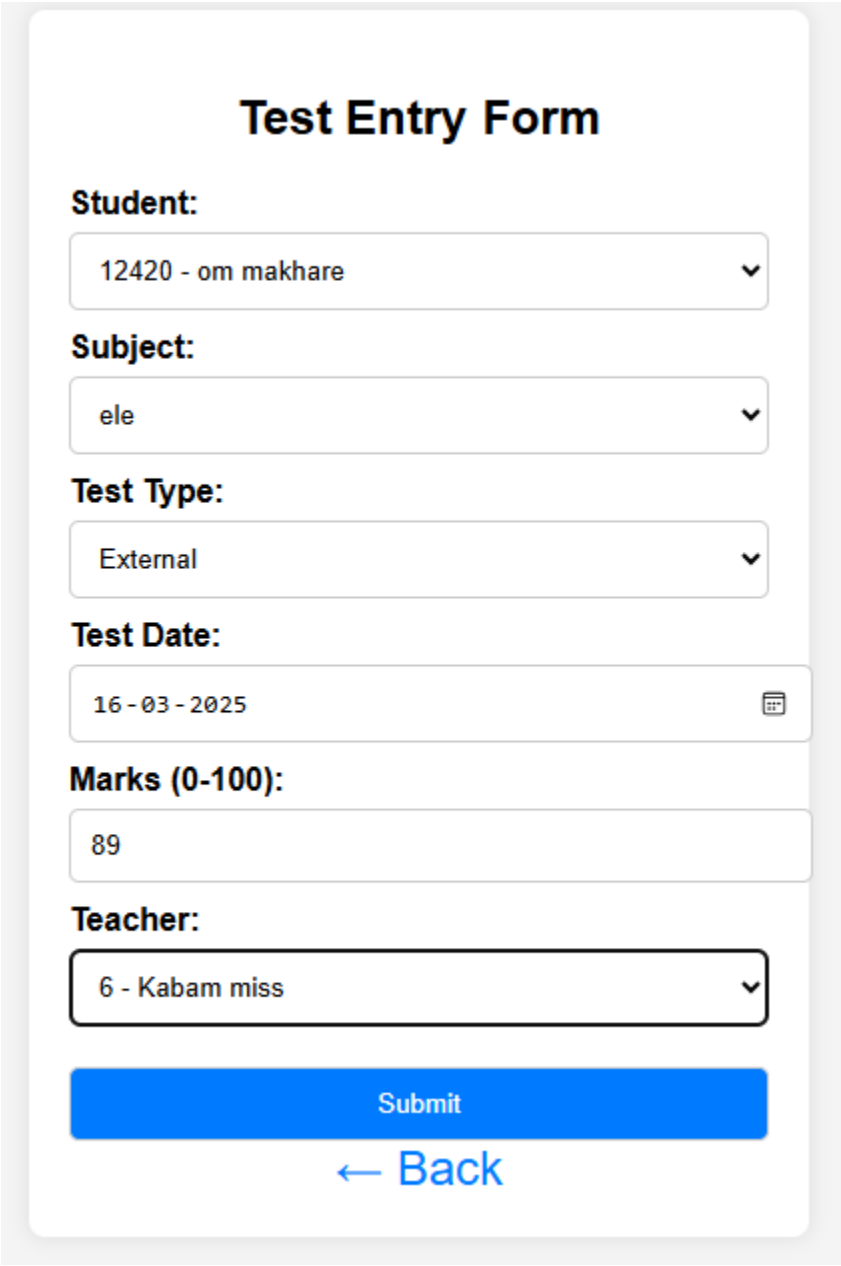


Input Output Screens :






Teacher Registration
3
thorat sir
soprt
voice principle
Submit
← Back


Test Entry Form
Student:
12420 - om makhare
Subject:
ele
Test Type:
External
Test Date:
16-03-2025
Marks (0-100):
89
Teacher:
6 - Kabam miss
Submit
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Future Enhancements :

The **Test System for College** has been designed to efficiently manage test records and student performance, but there is always room for improvement and expansion. Some potential **future enhancements** include:

1. **Automated Result Analysis & Graphical Reports**
    - Integrating **charts and graphs** to visualize student performance trends.
    - Providing **automated insights** such as subject-wise performance comparisons and student progress tracking.
2. **Student & Parent Login Portal**
    - Allowing students and parents to **view test results online**.
    - Sending **automated notifications** via email or SMS regarding test schedules and results.
3. **AI-Powered Performance Prediction**
    - Implementing **machine learning algorithms** to predict student performance based on historical data.
    - Providing **personalized study recommendations** to help students improve in weak subjects.
4. **Integration with Learning Management Systems (LMS)**
    - Connecting the system with platforms like **Moodle, Google Classroom, or Blackboard** to directly fetch test scores.
    - Enabling teachers to **assign and evaluate tests online** within the system.

Conclusion :

The **Test System for College** is an innovative and efficient solution designed to streamline the process of test management, student performance tracking, and result analysis. By leveraging **PHP and MySQL**, the system ensures seamless data storage, retrieval, and management while maintaining high accuracy and security. The system eliminates the traditional **paper-based record-keeping**, reducing errors and enhancing efficiency for teachers and administrators.

One of the key advantages of the system is its **user-friendly interface**, which allows teachers to easily enter test scores, filter results based on subjects and marks, and generate reports. The system also benefits students by providing **accurate and transparent performance records**, helping them assess their progress and improve accordingly. With its structured **user roles and access control**, only authorized users can manage and view test-related data, ensuring **data security and integrity**.

Furthermore, the system is **technically feasible**, as it requires minimal hardware resources and can be deployed on local or online servers. It is also **economically viable**, as it significantly reduces administrative workload and operational costs. Schools and colleges can **enhance decision-making** by analyzing student performance trends and identifying areas for improvement.

In conclusion, the **Test System for College** is a **cost-effective, scalable, and reliable** solution that enhances the overall academic evaluation process. It not only simplifies test management but also contributes to the **growth and efficiency** of educational institutions by promoting **fair and accurate assessment practices**

Bibliography :

- GeeksforGeeks: ER Diagrams in DBMS(https://www.geeksforgeeks.org/)
- OpenAI. (2025). ChatGPT – AI Language Model for Research & Development.

  Retrieved from https://openai.com
- PlantUML Documentation – Diagrams for System Modeling (plantuml.com).