Shri Khanderai Pratishthan's

DNYANSAGAR INSTITUTE OF MANAGEMENT & RESEARCH, PUNE

A Project Report

on

Online Examination System

by

Seat No	Name Of Student
4256	Landge Prathmesh Gokul

MCA – I (SEM-I)
2024-2025

To

Savitribai Phule Pune University
Pune- 411041

In Partial Fulfilment of the Degree of
Master in Computer Application (M. C. A.)

Under The Guidance Of

Prof. Manoj Patil

DNYANSAGAR INSTITUTE OF MANAGEMENT & RESEARCH

Date:

CERTIFICATE

This is to certify that **Mr. Landge Prathmesh Gokul** have successfully completed his project work entitled "**Online Examination System**" in partial fulfilment of MCA – I (Semester-I) program for the year A.Y. 2024-2025 to Savitribai Phule Pune University. He had worked under our guidance and direction.

Prof. Manoj Patil

Project Guide

Internal Examiner **External Examiner**

Dr. Sajid Alvi
Director

DECLARATION

To,

The principal,

DIMR, Pune

Respected Sir,

I hereby declare that the project entitled **"Online Examination System"** developed under the guidance of **Prof. Manoj Patil** is my original work. The reports generated in the project work are based on the information collected by me. I have not copied from any other project report submitted to SPPU earlier. The work has been submitted in partial fulfilment of the requirement of degree Master of Computer Application (MCA) to Savitribai Phule Pune University.

Student Name: Landge Prathmesh Gokul

Place: Pune

Date:

ACKNOWLEDGMENT

This work has been during project period, present project work method of education is really good opportunity to put theoretical knowledge into a planned exercise with on aim to solve a real-life business problem and also develop confidence to face various situations.

I thanks to **Dr. Sajid Alvi (Director DIMR)** for providing congenial atmosphere and encouragement. I express my sincere thanks for giving me moral support and has kind attention and valuable guidance to me throughout this course.

I would like to express my deep and foremost gratitude to my **Internal Project Guide Prof. Manoj Patil** has always been a source of inspiration and motivation for me. I would like to thank all my friends who have been always there to help me, and also who helped me directly or indirectly in completion for this project.

Thank You,

Student Name

Landge Prathmesh Gokul

INDEX

Chapter	Page number
CHAPTER 1: INTRODUCTION	
1.1 Introduction	**6**
1.2 Existing System	**7**
1.3 Need for System	**8**
1.4 Operating Environment Hardware and Software	**9**
CHAPTER 2: PROPOSED SYSTEM	
2.1 Proposed System	**12**
2.2 Module specifications	**13**
2.3 Scope	**15**
2.4 Objectives of System	**17**
CHAPTER 3: ANALYSIS & DESIGN	
3.1 Entity Relationship Diagram	**19**
3.2 Use Case Diagrams	**20**
3.3Activity Diagram	**21**
3.4 Class Diagram	**22**
3.5 Module Hierarchy Diagram	**23**
3.8 Test Cases	**24**
CHAPTER 4: USER MANUAL	
4.1 User Interface Screens (Input)	**26**
4.2 Database	**34**
4.3 Output Screen with Data	**37**
4.3 Sample Project Code	**38**
4.4 Bibliography	**46**

CHAPTER 1

INTRODUCTION

Online Examination System is a System for Multiple-Choice Questions (MCQ) based examination System. It is also a digital platform designed to manage and conduct exams over the internet. This system allows educational institutions, certification bodies, and businesses to administer tests and assessments efficiently and securely. An Online Examination System revolutionizes the traditional exam process by leveraging technology to create a more efficient, secure, and accessible assessment environment. By incorporating advanced features and maintaining a user-centred approach.

An Online Examination System is a structured method used to assess the knowledge, skills, and abilities of individuals through tests or exams. This system can be implemented in various formats, including written, oral, and practical exams, and can be conducted in physical locations or online.

Online Examination Systems are widely used in various industries and have become an indispensable tool in modern education and vocational training. It has become a regular choice not only in schools and universities in the field of education, but is also widely used in areas such as businesses, government departments and professional certification organizations.

An Online Examination System features that people commonly use, covering exam management, question bank management, personnel management, grading, anti-cheating, learning support, statistics, and analysis, reporting and certificate generation, and so on. By understanding these features, you will be able to choose an online exam system that suits your needs, enhances learning and assessment, and drives personal and organizational development and success.

EXISTING SYSTEM

The existing system of conducting examination process is manual. Existing system is a large man power process and is difficult to implement it at different platform. It has so many problems. So, we introduce an Online Examination System, which is fully computerized. Existing system is a large man power process and is difficult to implement.

Disadvantages of existing System:

- The existing systems are very time consuming.
- Results are not precise as calculations and evaluations are done manually.
- Organizing physical exam centres, transporting exam papers, and arranging invigilators can be complex and time-consuming.
- High costs are associated with venue booking, printing, and distributing exam materials.
- Candidates need to travel to specific exam centres, which can be challenging for those living in remote areas or with mobility issues.
- Fixed exam schedules may not accommodate all candidates, leading to inconvenience.
- Physical papers are susceptible to loss, theft, or tampering.
- Cheating and malpractice can be more challenging to monitor and control in large exam halls.
- High usage of paper for printing exam papers and answer sheets contributes to deforestation and environmental degradation.
- Carbon footprint from transportation and venue energy consumption.
- Once scheduled, changing exam dates or venues can be difficult and inconvenient.
- Susceptible to errors in manual grading and result compilation.
- Possibility of biased evaluation and inconsistencies in marking.

NEED FOR SYSTEM

An Online Examination System offers a multitude of benefits that address the limitations and challenges of traditional offline examination systems. Here is a brief overview of why there is a growing need for Online Examination System:

1. **Accessibility and Convenience:**
   - Anytime, anywhere: Candidates can take exams from any location with internet access, eliminating the need for physical exam centres.
   - Flexible Scheduling: Exams can be scheduled at times that are convenient for candidates, accommodating different time zones and personal schedules.
2. **Efficiency and Speed:**
   - Automated Processes: Registration, scheduling, and grading are automated, significantly reducing the administrative workload.
   - Instant Feedback: Immediate scoring for objective questions allows candidates to receive instant feedback on their performance.
3. **Cost-Effectiveness:**
   - Reduced Costs: Eliminates expenses related to physical exam venues, printed materials, and logistics.
   - Scalability: Can accommodate many candidates simultaneously, making it suitable for institutions of all sizes.
4. **Enhanced Security:**
   - Proctoring: AI-based proctoring and secure browsers help prevent cheating and ensure exam integrity.
   - Data Encryption: Secure data storage and transmission protect sensitive candidate information.
5. **Environmentally Friendly:**
   - Paperless Exams: Reduces the need for paper, contributing to environmental sustainability.
6. **Comprehensive Data and Analytics:**
   - Performance Tracking: Advanced analytics track candidate performance and generate insightful reports.
   - Data-Driven Decisions: Helps educators and administrators make informed decisions to improve the exam process and curriculum.
7. **Adaptability:**
   - Adaptive Testing: Adjusts the difficulty of questions based on the candidate's performance, providing a personalized assessment experience.

OPERATING ENVIRONMENT: HARDWARE AND SOFTWARE

The **Online Examination System** requires specific hardware and software configurations to function optimally. Below is an overview of the recommended operating environment.

HARDWARE AND SOFTWARE

HARDWARE REQUIREMENTS	1. Server (for hosting the application) ▪ **Processor:** Intel Core i5 or equivalent (or higher) ▪ **RAM:** 8 GB (minimum) ▪ **Storage:** 500 GB HDD or SSD (minimum) ▪ **Network:** Stable internet connection (at least 10 Mbps) ▪ **Operating System**: Windows, Linux, or macOS (for hosting) 2. Client Machine (for users and administrators) ▪ **Processor:** Intel Core i3 or equivalent (or higher) ▪ **RAM:** 4 GB (minimum) ▪ **Storage:** 200 GB (minimum, for caching and user data) ▪ **Display:** 1024x768 resolution or higher ▪ **Network:** Reliable internet connection (minimum 5 Mbps)
SOFTWARE REQUIREMENTS	▪ **Operating System:** Windows10 ▪ **Browser:** chrome ▪ **Editor:** Vs Code, PyCharm ▪ **Frontend:** HTML5, CSS3, JavaScript ▪ **Backend**: Python, MySQL

TECHNOLOGY

The Online Examination System leverages a combination of modern technologies to ensure a robust, user-friendly, and efficient application. Below are the key technologies utilized in the development and functioning of the system:

BACKEND TECHNOLOGIES

1. Programming Language:

- **PHP:** Used for server-side programming due to its readability, simplicity, and the availability of powerful frameworks.

3. Database:

MySQL: A widely-used relational database management system (RDBMS) that provides robust data storage, retrieval, and management capabilities. It supports SQL queries, making it suitable for complex data operations.

4. Server Software:

Apache: Web server software used to serve the application over the internet. It is known for their its performance and scalability.

FRONTEND TECHNOLOGIES

1. Markup Language:

HTML5: Used for structuring content on the web. It provides the backbone of the user interface, allowing for the creation of forms, tables, and navigation elements.

2. Styling:

CSS3: Used for styling and layout of the web pages, ensuring a visually appealing and responsive design. It allows for customization of colours, fonts, and spacing.

3. JavaScript:

JavaScript:

- **JavaScript:** Laravel is a powerful PHP framework designed for web artisans, offering elegant syntax and robust features to streamline web application development.

4. Responsive Design Framework:

Bootstrap: A front-end framework that provides pre-designed components and a grid system for creating responsive layouts, ensuring the application is accessible on various devices.

CHAPTER 2

PROPOSED SYSTEM

The main objective of the Online Examination System is that it helps educational institutions and corporate world to conduct exams to any number of candidates at a time, in an automated manner. It reduces the time consumption and workload that exists in the current system of examination. It also helps is storing the record of each examination and the results are also stored in the system. This makes searching of the records easier as compare to existing system.

Candidate should be able to take exams from anywhere with an internet connection, using various devices. Automate the entire examination process, including registration, scheduling, question delivery, and scoring, to save time and reduce administrative workload. Implement robust security measures to ensure exam integrity and prevent cheating.

It will allow candidates to register and create profiles. It will support different roles such as administrators, examiners, and candidates. To use secure login mechanisms to verify user identities. Maintain a repository of questions categorized by subject and difficulty.

It will allow administrators to create and configure exams, including setting time limits, randomizing questions, and defining scoring rules. It enables flexible exam scheduling with options for fixed-time exams and on-demand exams.

To use secure browsers to restrict candidates from accessing other applications or websites during the exam. Automatically grade objective questions and provide immediate feedback to candidates. Generate detailed reports on candidate performance, question difficulty, and overall exam statistics.

Track and analyse candidate performance to identify trends and areas for improvement. Provide actionable insights for educators and administrators to improve the exam process and curriculum design.

Ensure the system is accessible on various devices, including desktops, tablets, and smartphones.

MODULE SPECIFICATION

1. User Management Module

- Roles and Permissions: Manage user roles (e.g., admin, examiner, candidate) and define access levels.
- Registration: Allow new users to register and create profiles.
- Authentication: Secure login and authentication mechanisms.

2. Exam Management Module

- Exam Creation: Design and configure exams, including setting questions, time limits, and exam rules.
- Scheduling: Plan and schedule exams, set start and end times, and manage exam slots.

3. Question Bank Module

- Question Management: Add, edit, and delete questions.
- Categorization: Organize questions by subject, difficulty level, and type (e.g., multiple-choice, short answer, essay).

4. Exam Conduct Module

- Exam Delivery: Present questions to candidates during the exam.
- Timer Management: Display and manage countdown timers for each exam session.
- Navigation Controls: Allow candidates to navigate between questions.

5. Proctoring and Security Module

- Secure Browsing: Implement secure browsers to restrict access to other applications and websites.

6. Grading and Feedback Module

- Automated Grading: Instantly grade multiple-choice questions.
- Feedback: Provide immediate feedback to candidates on their performance.

7. Reporting and Analytics Module

- Performance Reports: Generate detailed reports on candidate performance.
- Exam Statistics: Analyse data on question difficulty, exam trends, and overall performance.
- Customizable Reports: Create reports tailored to different stakeholders (e.g., educators, administrators).

8. Notification and Communication Module

- Email Notifications: Send automated email notifications for exam schedules, reminders, and results.
- Announcements: Publish important announcements related to exams and schedules.

9. Data Management and Backup Module

- Data Storage: Securely store exam data, user data, and results.
- Backup: Regularly back up data to prevent loss and ensure data integrity.

10. Help and Support Module

- Help Desk: Provide support for candidates facing technical issues.
- Documentation: Offer user manuals, FAQs, and tutorials to assist users.

SCOPE OF THE SYSTEM

Scope of Online Examination System:

The scope of an Online Examination System encompasses a wide range of functionalities and applications, designed to streamline the assessment process for educational institutions, certification bodies, and businesses. Here are some key aspects of its scope:

1. Comprehensive Exam Management:

- Question Bank Management: Creation, categorization, and storage of a wide variety of question types, including multiple-choice, short answer, essay, and multimedia questions.
- Exam Creation and Configuration: Designing exams with customizable settings such as time limits, randomization, and adaptive testing.

2. User Management:

- Role-Based Access: Different access levels for administrators, examiners, and candidates, ensuring secure and appropriate access to functionalities.
- Registration and Authentication: Secure registration processes and login mechanisms for candidates.

3. Conducting Exams:

- Remote Accessibility: Candidates can take exams from anywhere with internet access, using various devices such as desktops, tablets, and smartphones.
- Proctoring: Advanced proctoring solutions, including AI-based monitoring and secure browsers, to maintain the integrity of exams.

4. Automated Processes:

- Automated Grading: Instant grading of objective questions, providing immediate feedback to candidates.
- Result Compilation: Efficient compilation and analysis of results, reducing administrative workload.

5. Data Analytics and Reporting:

- Performance Tracking: Detailed analytics on candidate performance, question difficulty, and exam trends.
- Customizable Reports: Generation of reports for different stakeholders, including educators, administrators, and accreditation bodies.

6. Integration and Compatibility:

- LMS Integration: Seamless integration with Learning Management Systems (LMS) for a unified learning and assessment experience.
- API Support: APIs for integrating with other systems and platforms, enabling data exchange and interoperability.

7. Security Measures:

- Data Encryption: Secure storage and transmission of sensitive data to prevent unauthorized access.
- Fraud Prevention: Measures to detect and prevent cheating, including secure browsers and proctoring.

8. Flexibility and Adaptability:

- Customizable Exams: Tailored exams to suit different subjects, difficulty levels, and assessment needs.
- Adaptive Testing: Adjusting question difficulty based on candidate performance for a personalized assessment experience.

9. Scalability:

- Handling Large Volumes: Capable of supporting many candidates simultaneously, making it suitable for institutions of all sizes.
- Cloud-Based Solutions: Leveraging cloud infrastructure for scalability and reliability.

10. Environmental and Cost Benefits:

- Paperless Exams: Reducing the need for printed materials, contributing to environmental sustainability.
- Cost-Effective: Lowering costs associated with physical exam venues, printing, and logistics.

OBJECTIVE OF THE SYSTEM

1)Economic Feasibility:

- Reduced Operational Costs:

Elimination of Physical Venues: No need to rent or maintain physical exam centres, reducing venue costs.

Lower Printing Costs: No requirement for printed exam papers, answer sheets, and other materials, leading to significant savings on printing and distribution.

- Reduced Travel and Accommodation Costs:

Remote Access: Candidates can take exams from their own locations, eliminating travel and accommodation expenses for both candidates and invigilators.

- Lower Environmental Impact:

  Paperless Exams: Reduces the need for paper, contributing to environmental sustainability and potentially reducing waste management costs.

- Efficient Use of Resources:

  Better Utilization of Human Resources: Staff can focus on more value-added tasks rather than administrative chores.

  Optimal Use of Technology: Leverages existing technology infrastructure, reducing the need for additional investments.

2)Time Flexibility:

- On-Demand Scheduling:

  Candidates can take exams at a time that suits them, rather than adhering to a fixed schedule. This is particularly beneficial for working professionals and students with busy schedules.

- Asynchronous Exam Sessions:

  Multiple Time Zones: Supports candidates from different time zones by allowing them to take the exam at different times, ensuring fairness and accessibility.

  Individual Start Times: Candidates can start the exam individually rather than all starting at the same fixed time, reducing the pressure, and accommodating personal schedules.

- Flexibility in Duration:

  Variable Time Limits: Allows different time limits for different exams or candidates based on their needs. For instance, candidates with special needs might be given additional time to complete the exam.

3) Technically Feasible:

A. Cloud Computing:

- Scalability: Cloud platforms like AWS, Google Cloud, and Azure provide scalable resources that can handle varying loads, ensuring that the system can accommodate many candidates simultaneously.
- Reliability: Cloud services offer high availability and redundancy, reducing the risk of downtime and ensuring that the exam system is always accessible.

B. Web Technologies:

- Responsive Design: Using HTML, CSS, and JavaScript frameworks (e.g., React, Angular) to create responsive web applications that work seamlessly on various devices, including desktops, tablets, and smartphones.
- API Integration: RESTful APIs facilitate communication between the frontend and backend, allowing for efficient data exchange and integration with other systems like Learning Management Systems (LMS).

C. Security Measures:

- Data Encryption: Implementing SSL/TLS encryption to secure data transmission between the client and server, protecting sensitive information.
- User Authentication: Using robust authentication mechanisms like OAuth, JWT, and multi-factor authentication (MFA) to verify user identities and prevent unauthorized access.

D. Database Management:

- Relational Databases: Using databases like MySQL, PostgreSQL, or SQL Server for structured data storage, ensuring data integrity and efficient querying.
- NoSQL Databases: Utilizing NoSQL databases like MongoDB for flexible and scalable data storage, particularly for unstructured or semi-structured data.

E. Network Infrastructure:

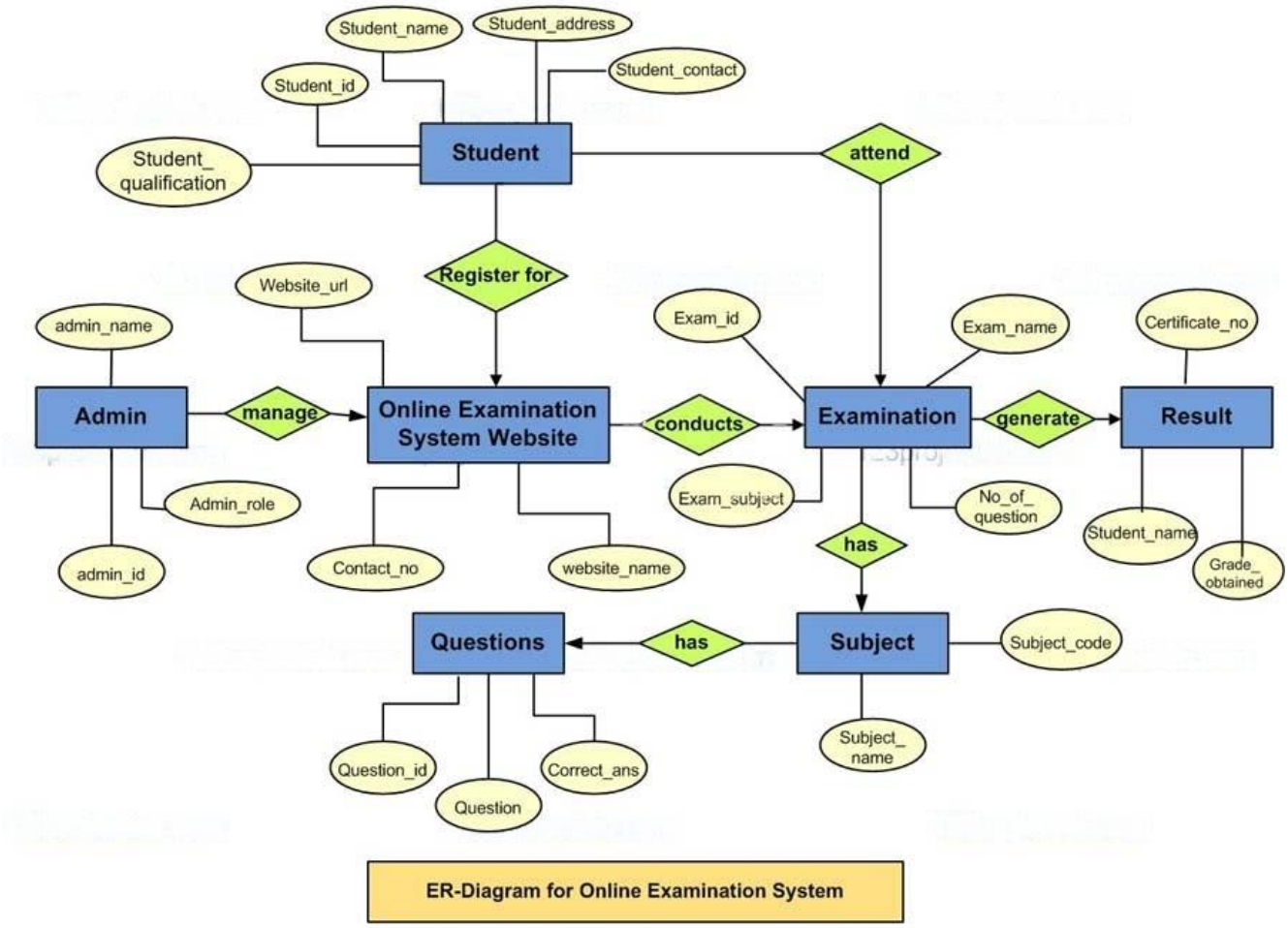
- High-Speed Internet: Ensuring that candidates and administrators have access to high-speed internet connections to support seamless interaction with the online exam system.
- Content Delivery Networks (CDN): Using CDNs to distribute content globally, reducing latency and improving access speed for users in different locations.

4) User-Friendly Interface:

- Intuitive Design: Designing a user-friendly interface that is easy to navigate, reducing the learning curve for candidates and administrators.
- Accessibility: Incorporating accessibility features (e.g., screen readers, keyboard navigation) to ensure that the system is usable by individuals with disabilities.

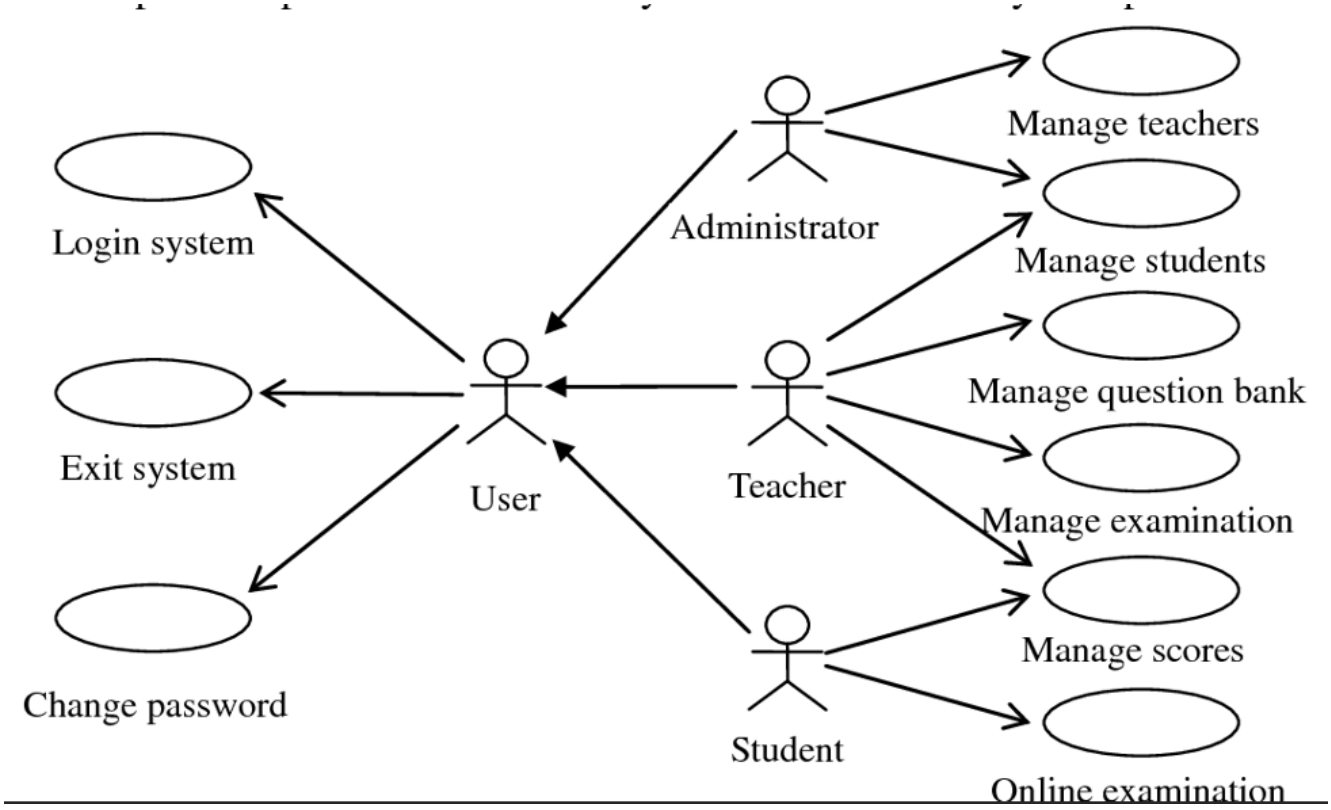
CHAPTER 3: ANALYSIS & DESIGN

3.1 Entity Relationship Diagram

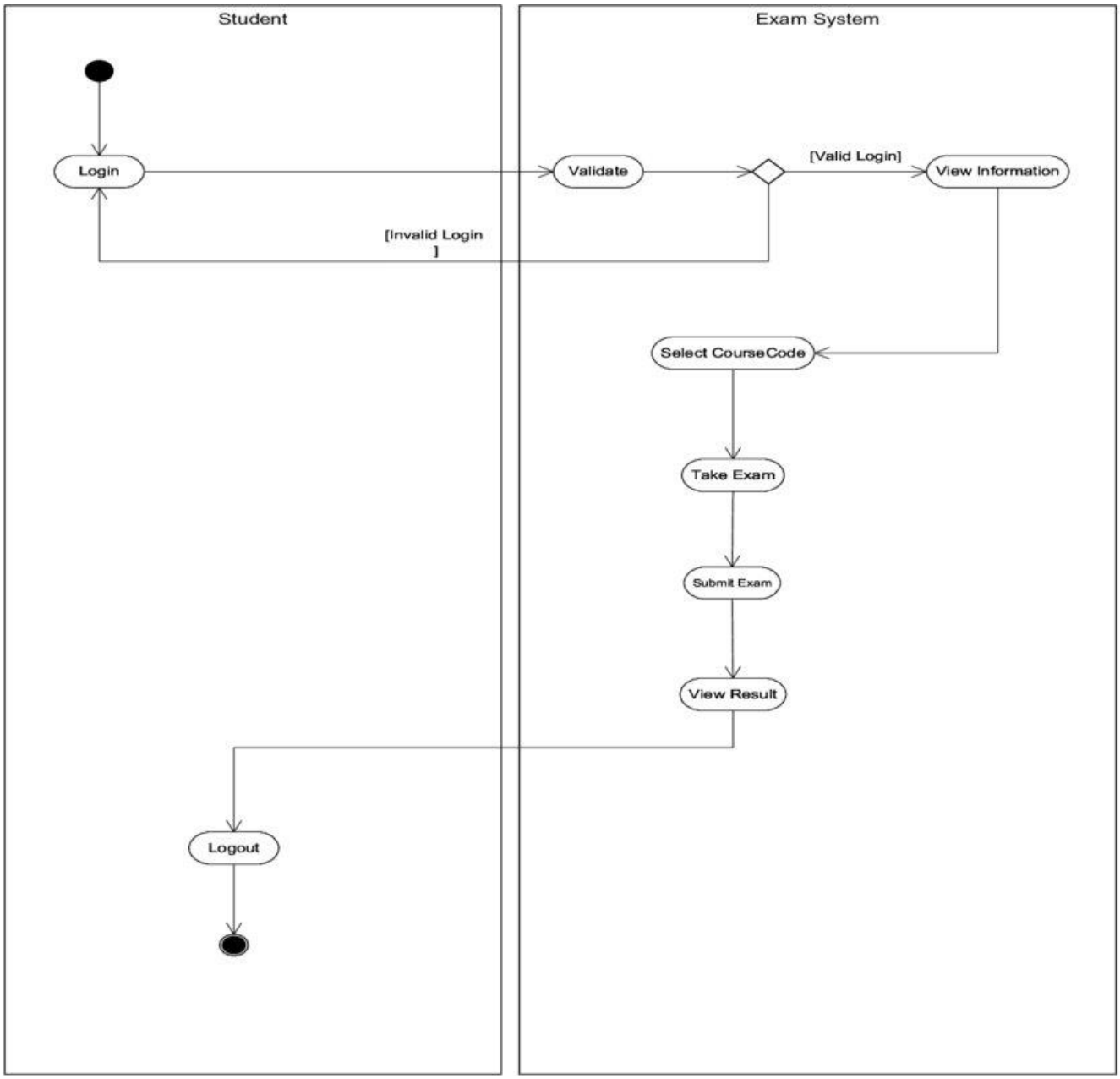


ER-Diagram for Online Examination System

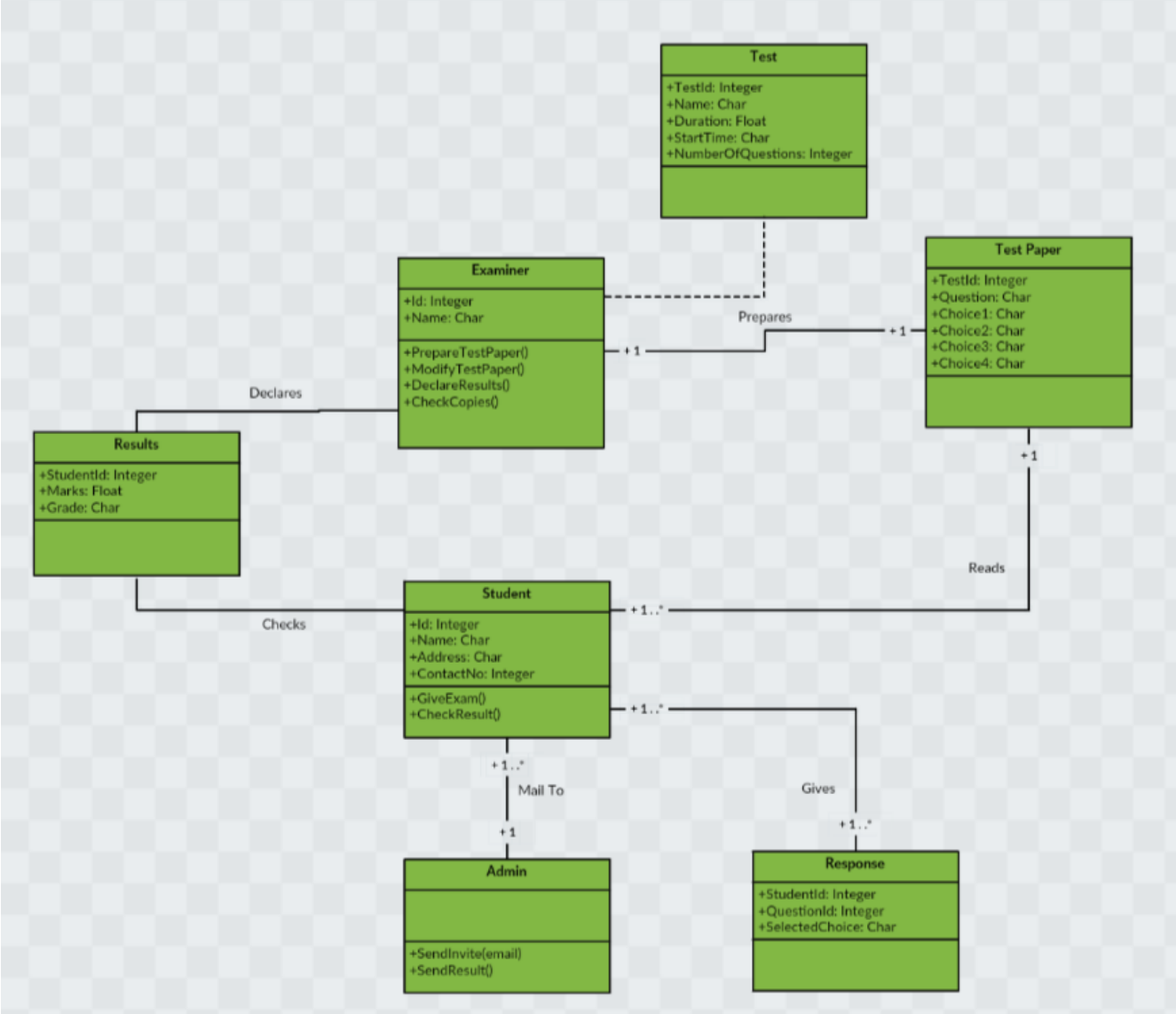
3.2 Use Case Diagrams



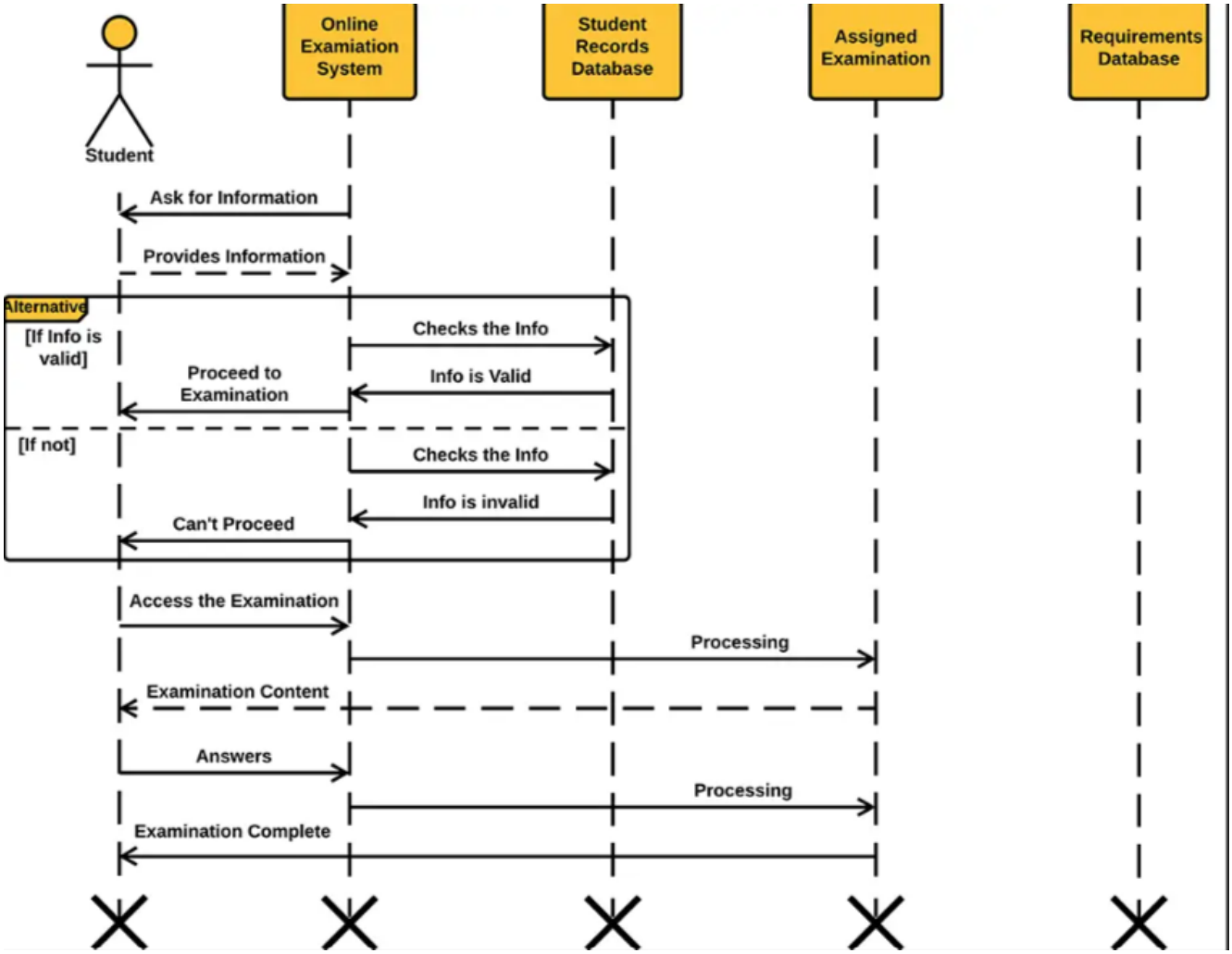
3.3Activity Diagram



3.4 Class Diagram



3.5 Module Hierarchy Diagram



3.6 Test Cases

1. User Registration and Login

- Test Case 1: Verify that a new user can register with valid details (username, email, password).
- Test Case 2: Verify that the system sends a confirmation email upon successful registration.
- Test Case 3: Verify that a registered user can log in with valid credentials.
- Test Case 4: Verify that login fails with incorrect credentials.
- Test Case 5: Verify that the "Forgot Password" functionality works correctly.

2. Exam Creation

- Test Case 1: Verify that an admin can create a new exam with details like exam name, subject, and duration.
- Test Case 2: Verify that the system allows setting the total number of questions.
- Test Case 3: Verify that the system allows adding questions with options and marks.
- Test Case 4: Verify that the system supports negative marking if enabled.
- Test Case 5: Verify that the system sets passing marks and exam duration correctly.

3. Exam Taking

- Test Case 1: Verify that a student can select an exam based on exam name or code.
- Test Case 2: Verify that the student can fill in required details before starting the exam.
- Test Case 3: Verify that the exam timer starts correctly upon beginning the exam.
- Test Case 4: Verify that the student can answer multiple-choice questions (MCQs) correctly.
- Test Case 5: Verify that the student can navigate between questions using "Previous" and "Next" buttons.

4. Exam Submission and Evaluation

- Test Case 1: Verify that the student can submit the exam once completed.
- Test Case 2: Verify that the system evaluates the exam considering positive and negative marks.
- Test Case 3: Verify that the system displays the result (Pass/Fail) along with marks secured.
- Test Case 4: Verify that the system shows questions attempted and other relevant details.

5. Result Viewing

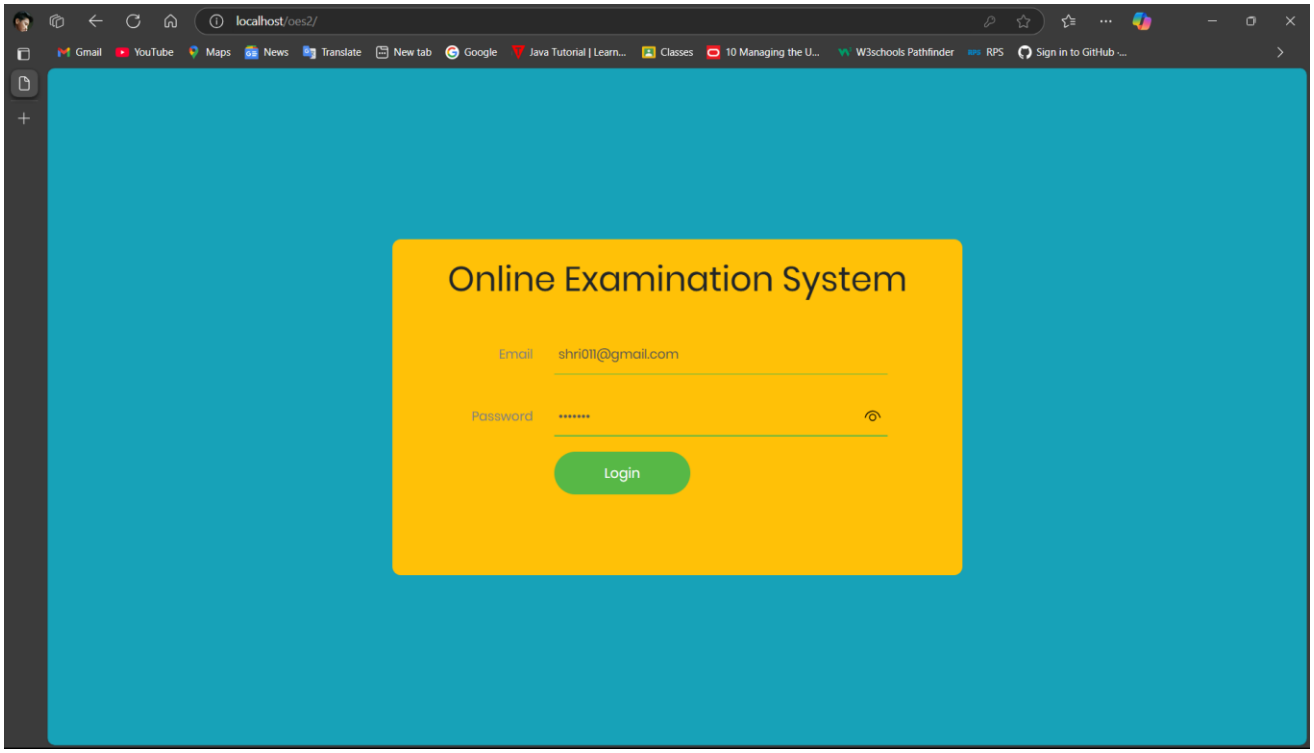
- Test Case 1: Verify that a student can view their exam results.
- Test Case 2: Verify that the system displays detailed results, including individual question scores.
- Test Case 3: Verify that the system allows students to review their answers if permitted.

6. Security and Access Control

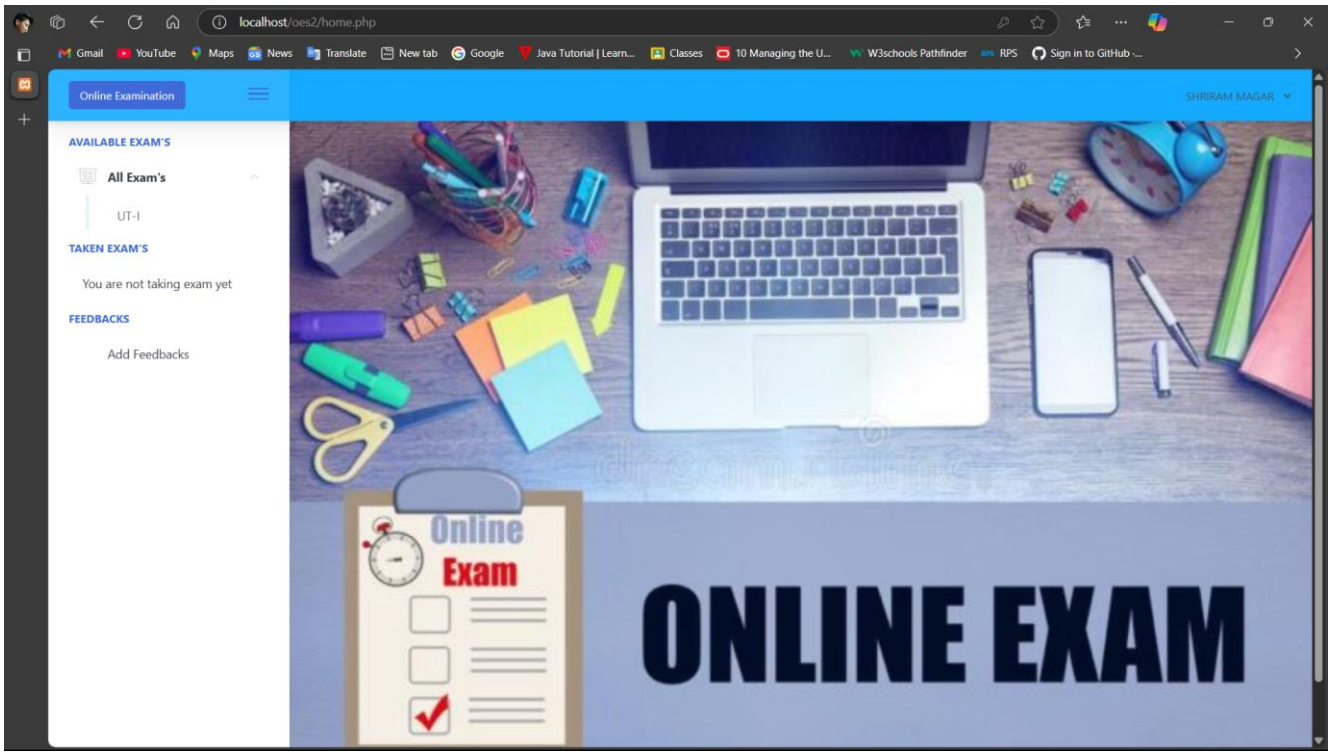
- Test Case 1: Verify that only registered users can access the exam system.
- Test Case 2: Verify that the system handles internet disconnections or power outages gracefully.
- Test Case 3: Verify that the system prevents unauthorized access to exam materials.

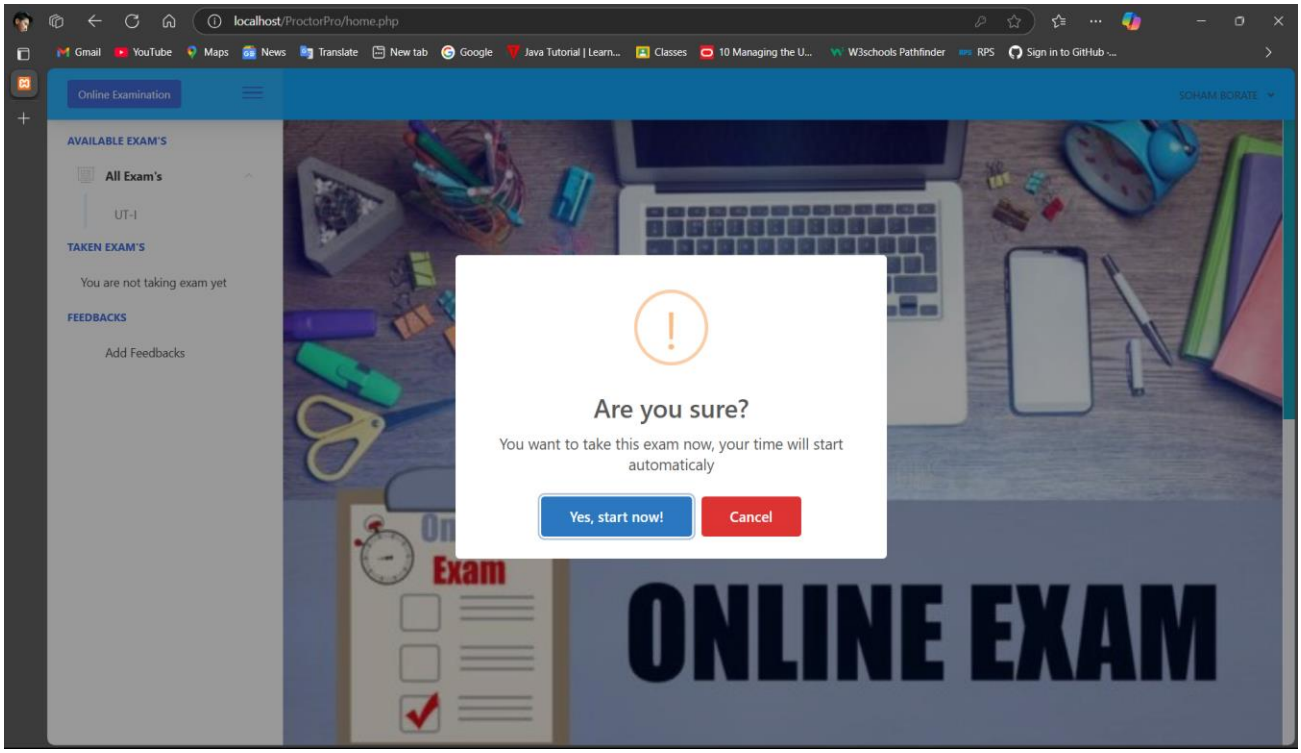
CHAPTER 4: USER MANUAL

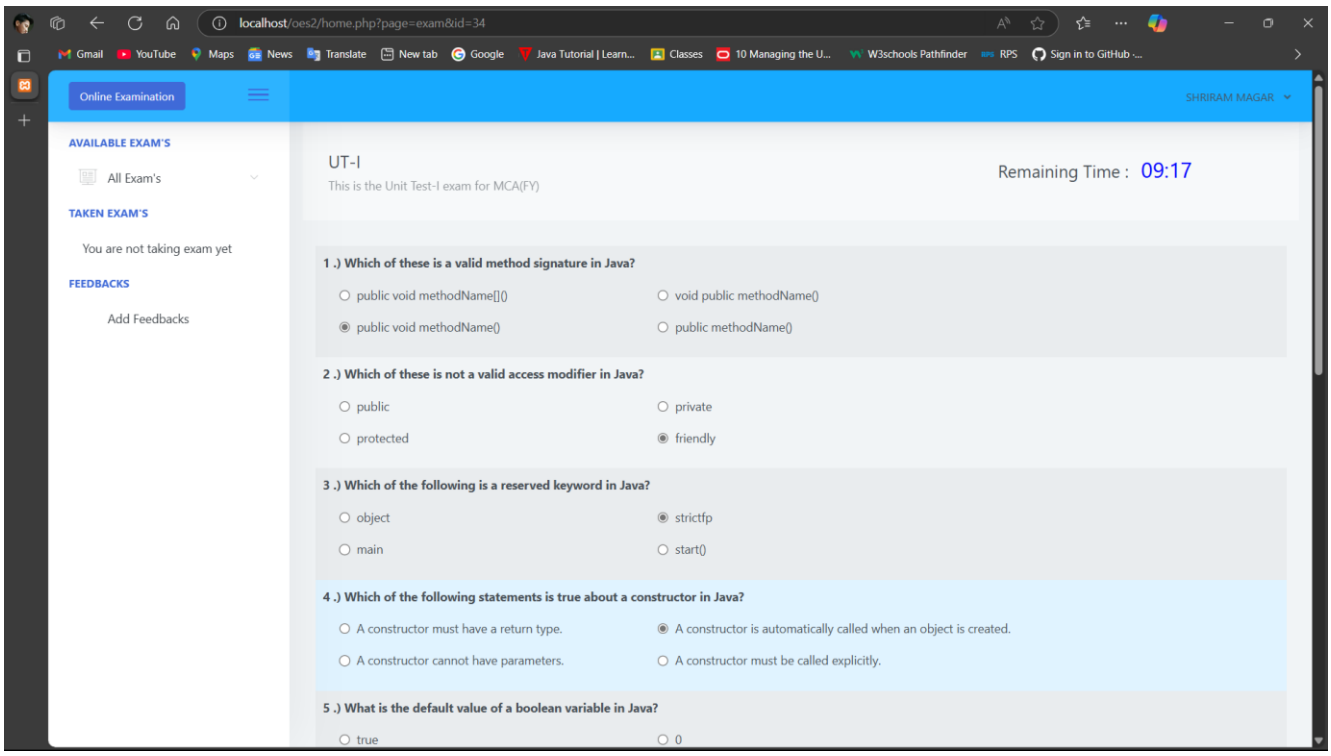
4.1 User Interface Screens (Input)

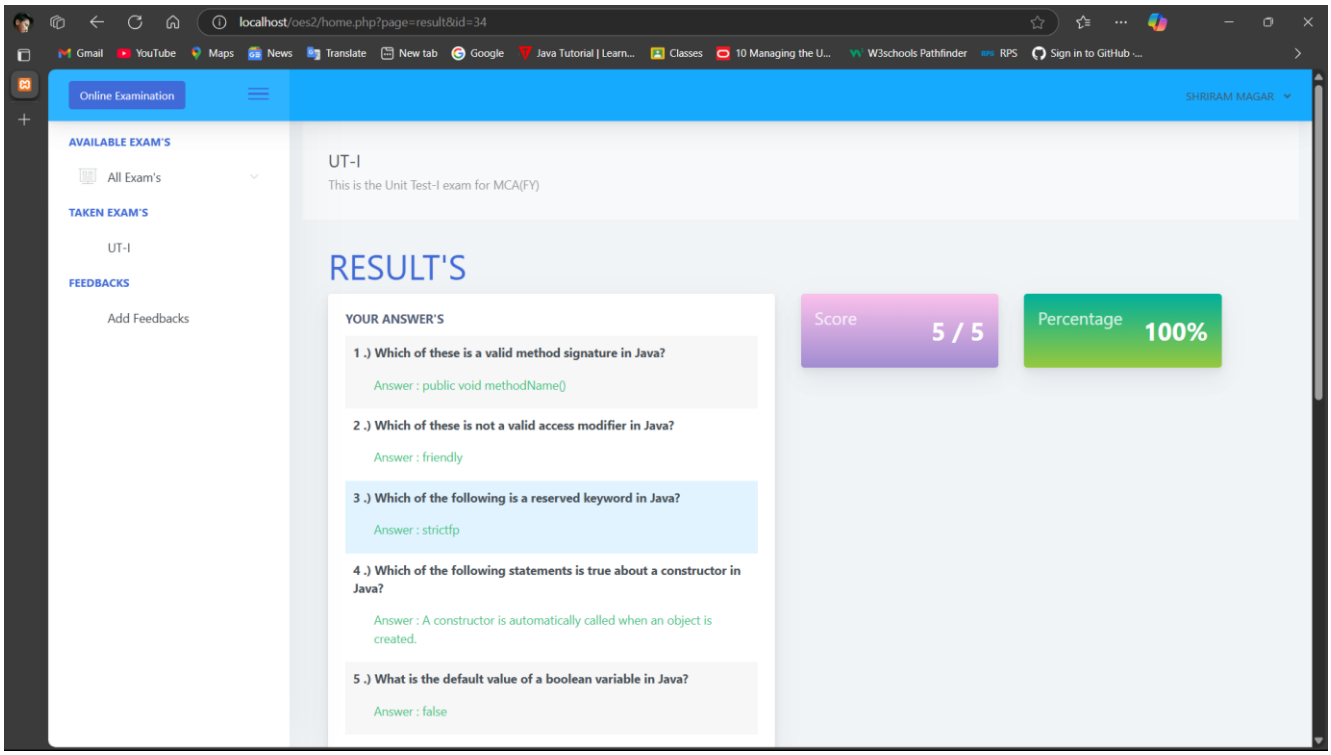


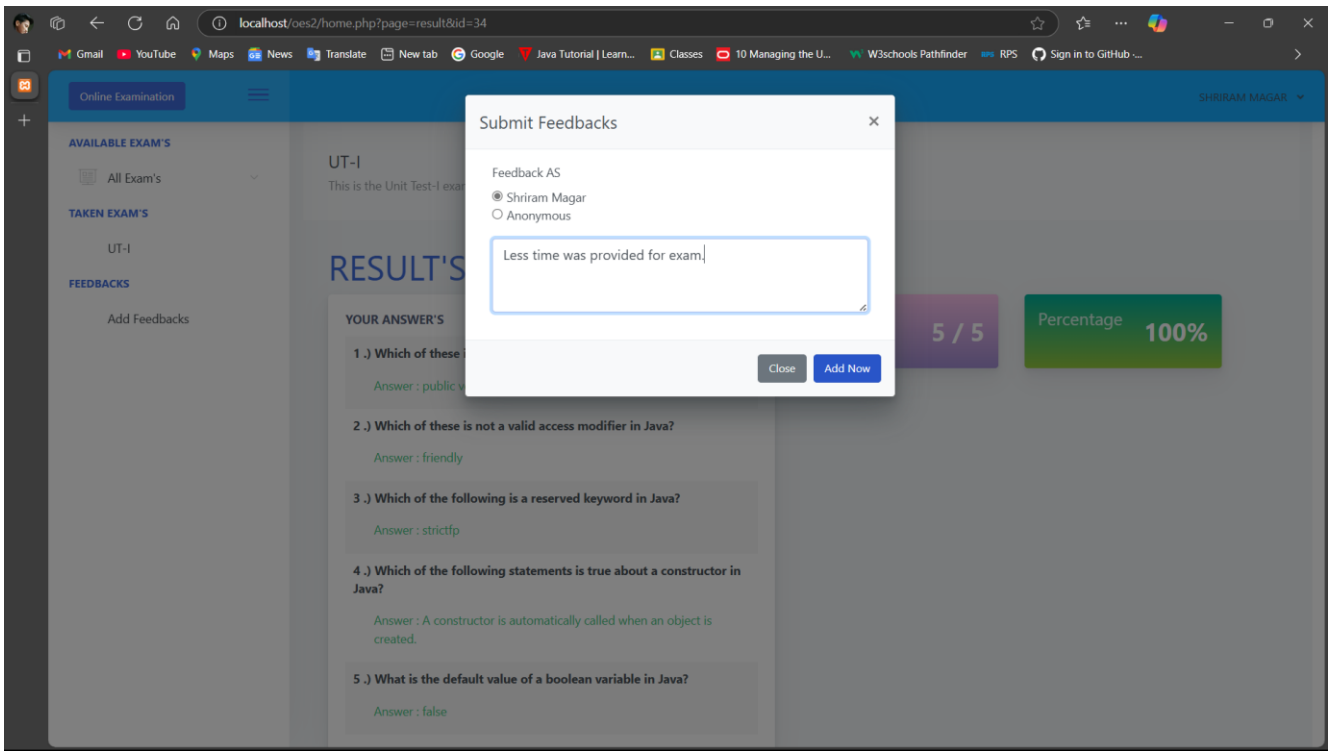
Home page


localhost/oes2/home.php
Online Examination
SHRIRAM MAGAR
AVAILABLE EXAM'S
All Exam's
UT-I
TAKEN EXAM'S
You are not taking exam yet
FEEDBACKS
Add Feedbacks
Online
Exam
ONLINE EXAM

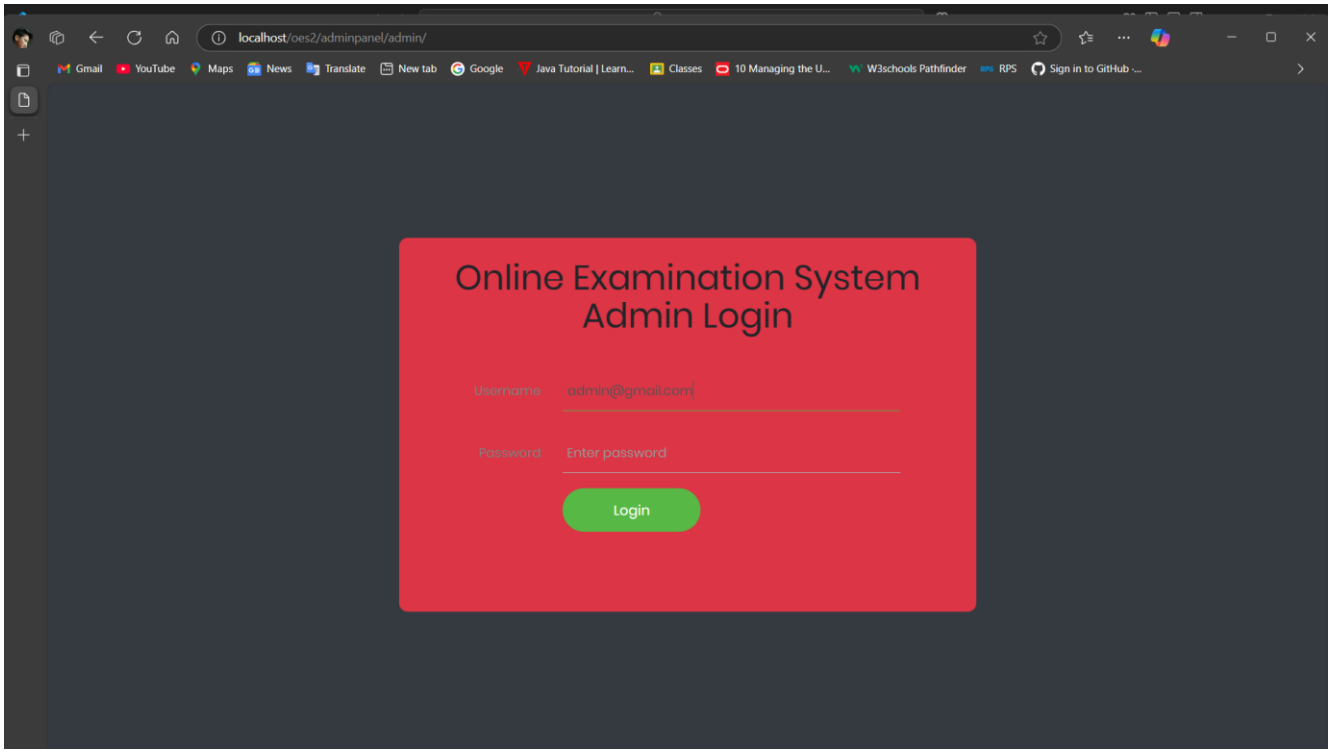

localhost/ProctorPro/home.php
Online Examination
SOHAM BORATE
AVAILABLE EXAM'S
All Exam's
UT-I
TAKEN EXAM'S
You are not taking exam yet
FEEDBACKS
Add Feedbacks
Are you sure?
You want to take this exam now, your time will start automaticaly
Yes, start now!
Cancel
ONLINE EXAM

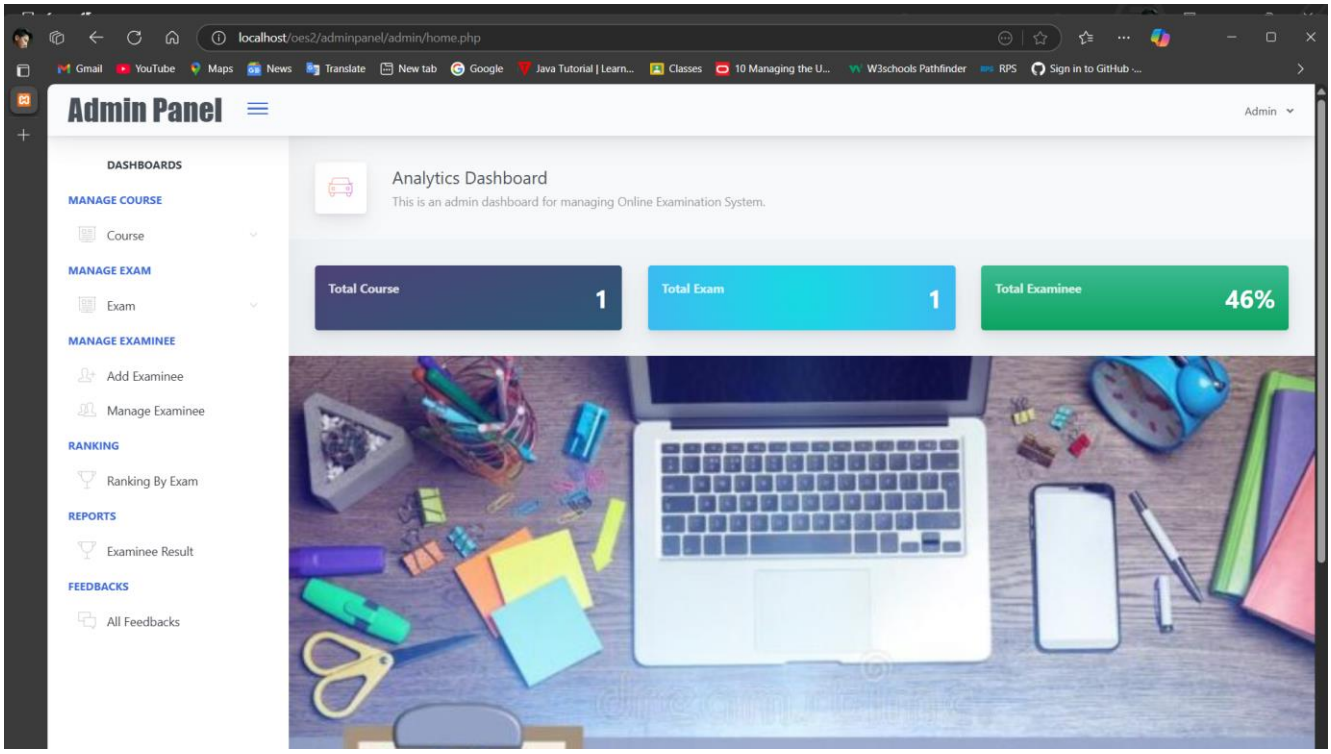

localhost/oes2/home.php?page=exam&id=34
Online Examination
SHRIRAM MAGAR
AVAILABLE EXAM'S
All Exam's
TAKEN EXAM'S
You are not taking exam yet
FEEDBACKS
Add Feedbacks
UT-I
This is the Unit Test-I exam for MCA(FY)
Remaining Time : 09:17
1 .) Which of these is a valid method signature in Java?
public void methodName[]()
void public methodName()
public void methodName()
public methodName()
2 .) Which of these is not a valid access modifier in Java?
public
private
protected
friendly
3 .) Which of the following is a reserved keyword in Java?
object
strictfp
main
start()
4 .) Which of the following statements is true about a constructor in Java?
A constructor must have a return type.
A constructor is automatically called when an object is created.
A constructor cannot have parameters.
A constructor must be called explicitly.
5 .) What is the default value of a boolean variable in Java?
true
0


localhost/oes2/home.php?page=result&id=34
Online Examination
SHRIRAM MAGAR
AVAILABLE EXAM'S
All Exam's
TAKEN EXAM'S
UT-I
FEEDBACKS
Add Feedbacks
UT-I
This is the Unit Test-I exam for MCA(FY)
RESULT'S
YOUR ANSWER'S
1 .) Which of these is a valid method signature in Java?
Answer : public void methodName()
2 .) Which of these is not a valid access modifier in Java?
Answer : friendly
3 .) Which of the following is a reserved keyword in Java?
Answer : strictfp
4 .) Which of the following statements is true about a constructor in Java?
Answer : A constructor is automatically called when an object is created.
5 .) What is the default value of a boolean variable in Java?
Answer : false
Score 5 / 5
Percentage 100%

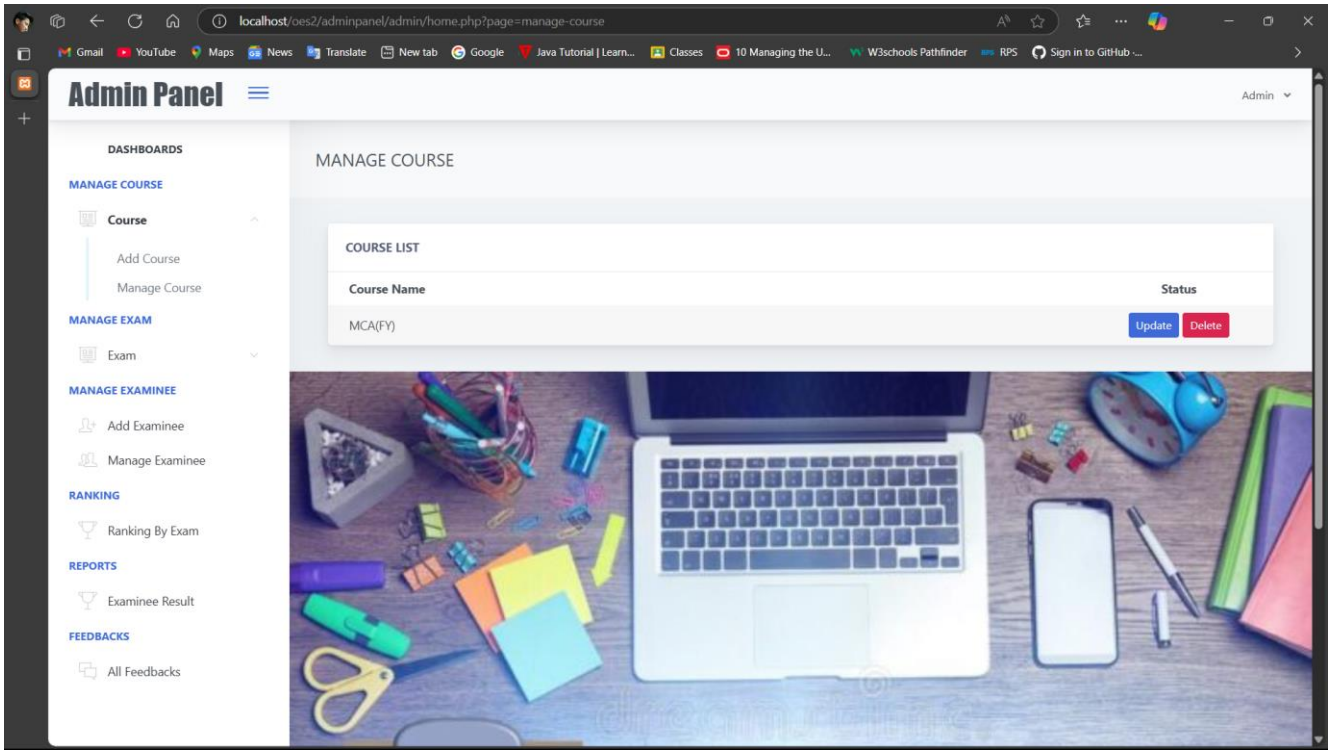


Admin Dashboard:

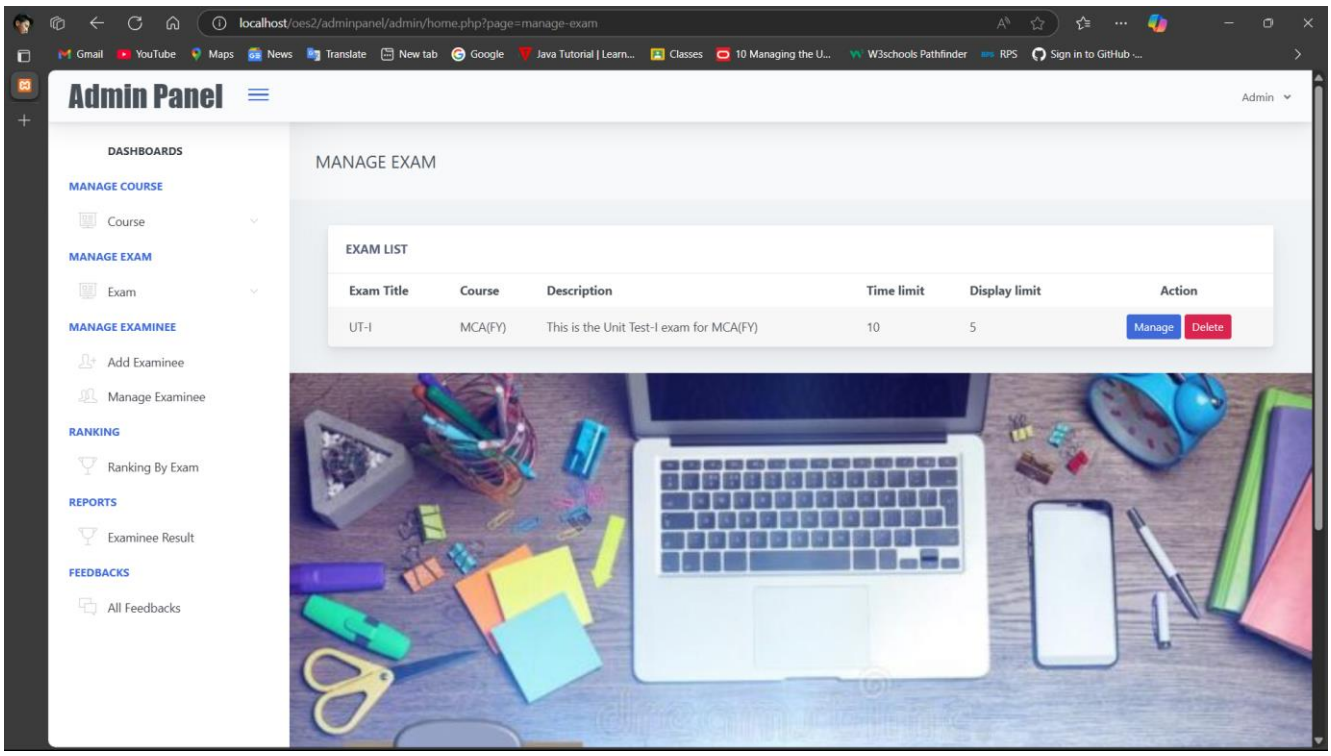


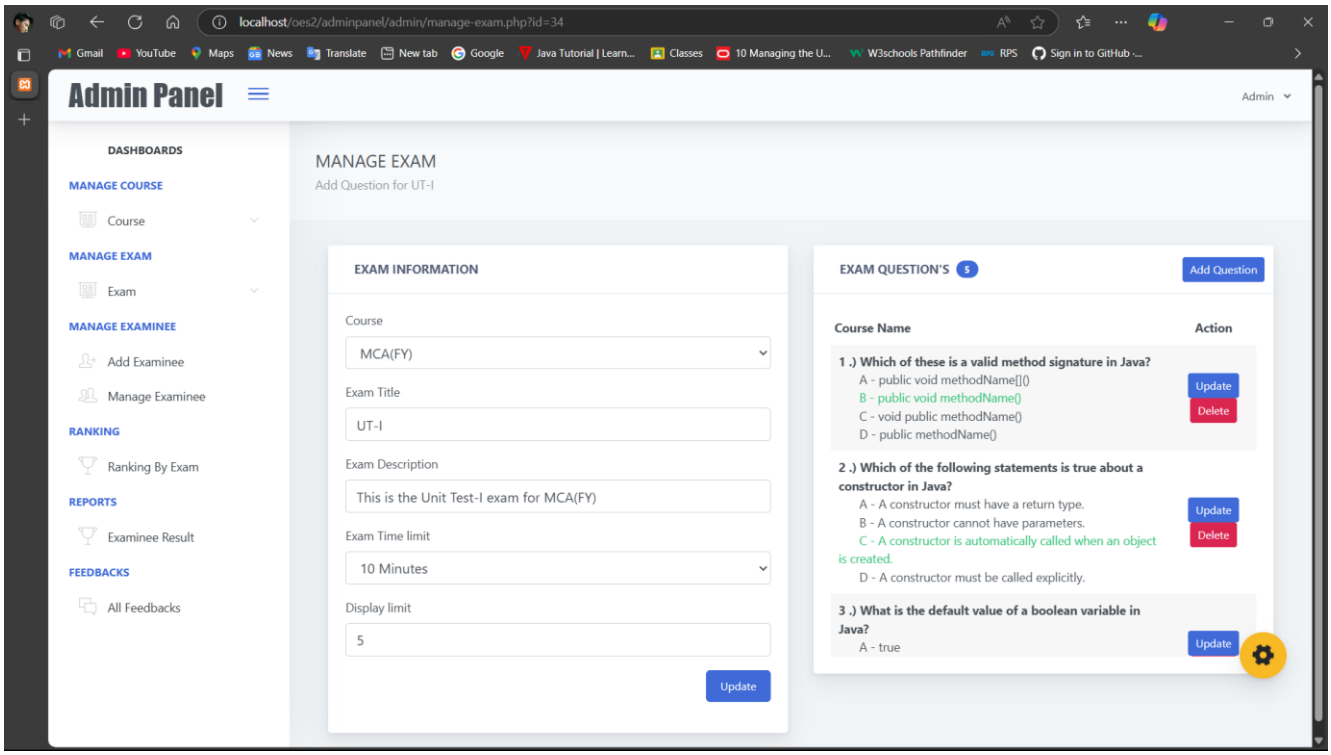


Manage Courses:

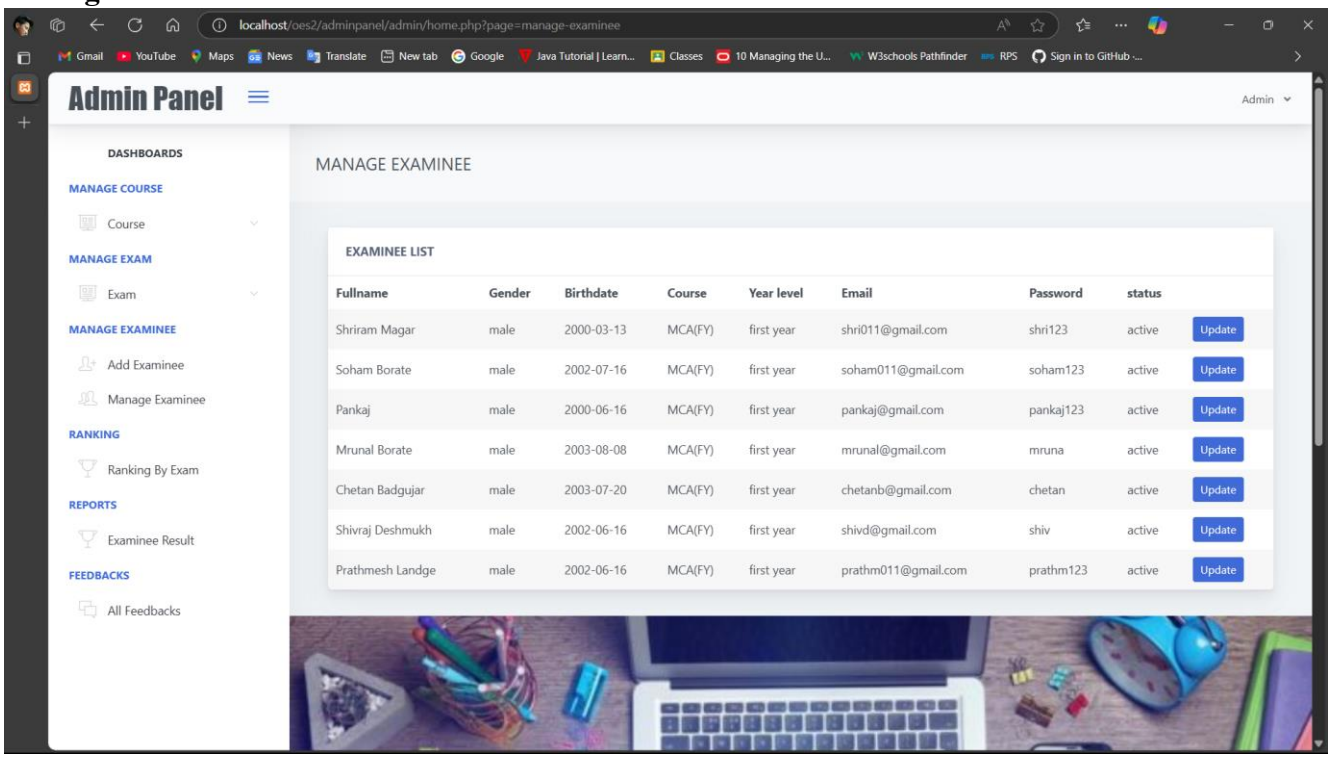


Manage Exam:

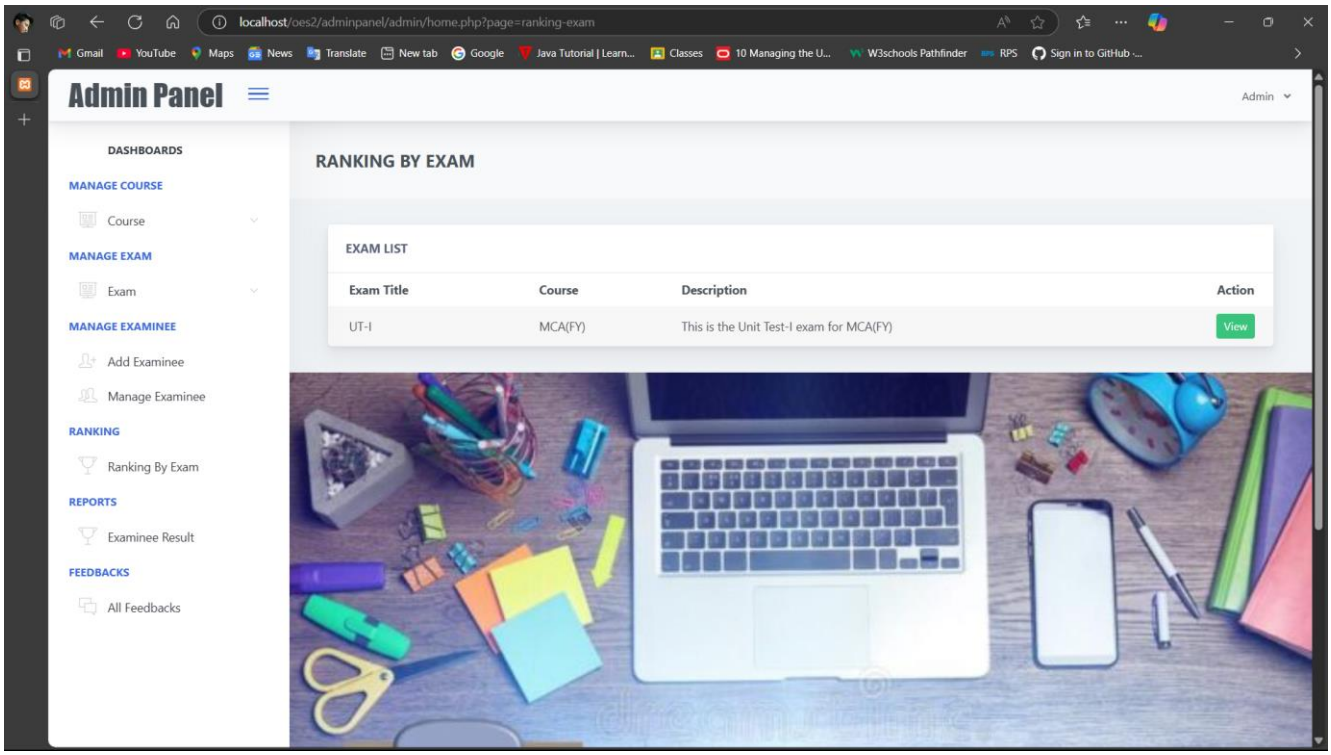

localhost/oes2/adminpanel/admin/home.php?page=manage-exam
Admin Panel
Admin
DASHBOARDS
MANAGE COURSE
Course
MANAGE EXAM
Exam
MANAGE EXAMINEE
Add Examinee
Manage Examinee
RANKING
Ranking By Exam
REPORTS
Examinee Result
FEEDBACKS
All Feedbacks
MANAGE EXAM
EXAM LIST
Exam Title
Course
Description
Time limit
Display limit
Action
UT-I
MCA(FY)
This is the Unit Test-I exam for MCA(FY)
10
5
Manage
Delete


localhost/oes2/adminpanel/admin/manage-exam.php?id=34
Admin Panel
Admin
DASHBOARDS
MANAGE COURSE
Course
MANAGE EXAM
Exam
MANAGE EXAMINEE
Add Examinee
Manage Examinee
RANKING
Ranking By Exam
REPORTS
Examinee Result
FEEDBACKS
All Feedbacks
MANAGE EXAM
Add Question for UT-I
EXAM INFORMATION
Course
MCA(FY)
Exam Title
UT-I
Exam Description
This is the Unit Test-I exam for MCA(FY)
Exam Time limit
10 Minutes
Display limit
5
Update
EXAM QUESTION'S 5
Add Question
Course Name
Action
1 .) Which of these is a valid method signature in Java?
A - public void methodName[]()
B - public void methodName()
C - void public methodName()
D - public methodName()
Update
Delete
2 .) Which of the following statements is true about a constructor in Java?
A - A constructor must have a return type.
B - A constructor cannot have parameters.
C - A constructor is automatically called when an object is created.
D - A constructor must be called explicitly.
Update
Delete
3 .) What is the default value of a boolean variable in Java?
A - true
Update

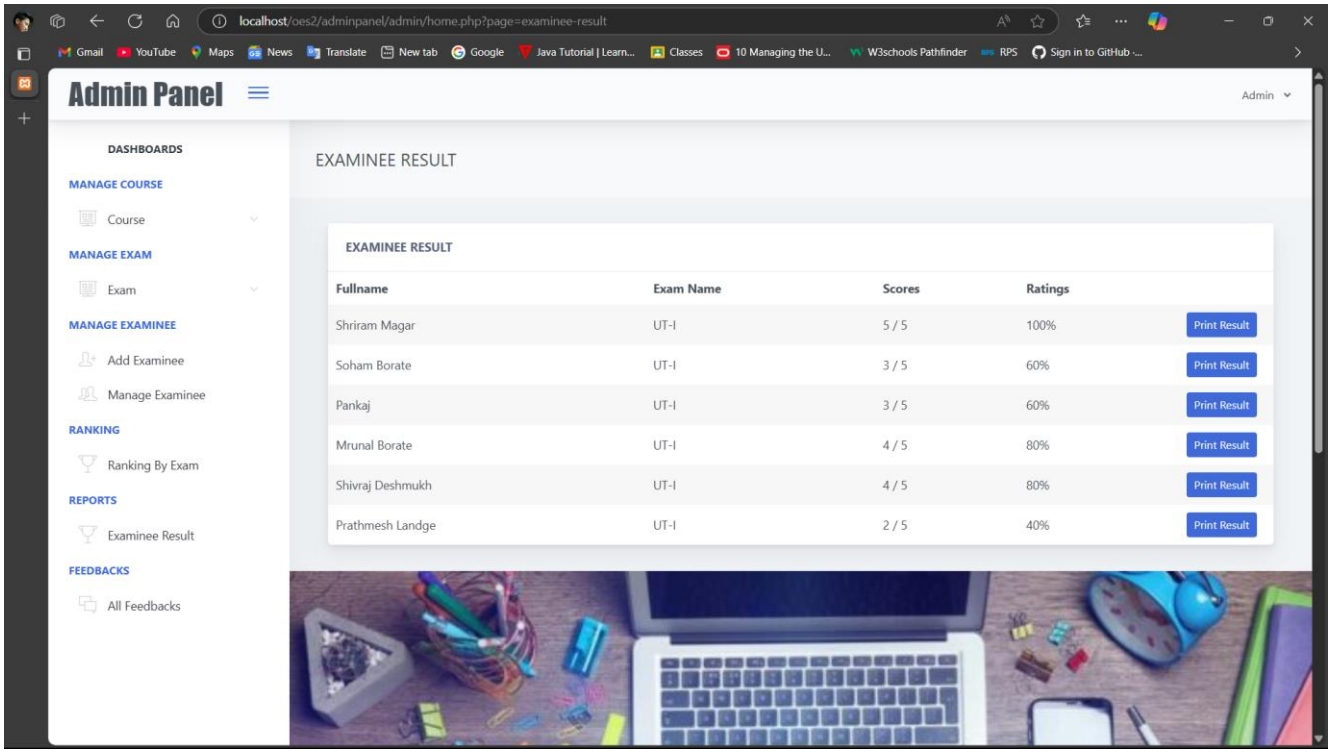
Manage Examinees:



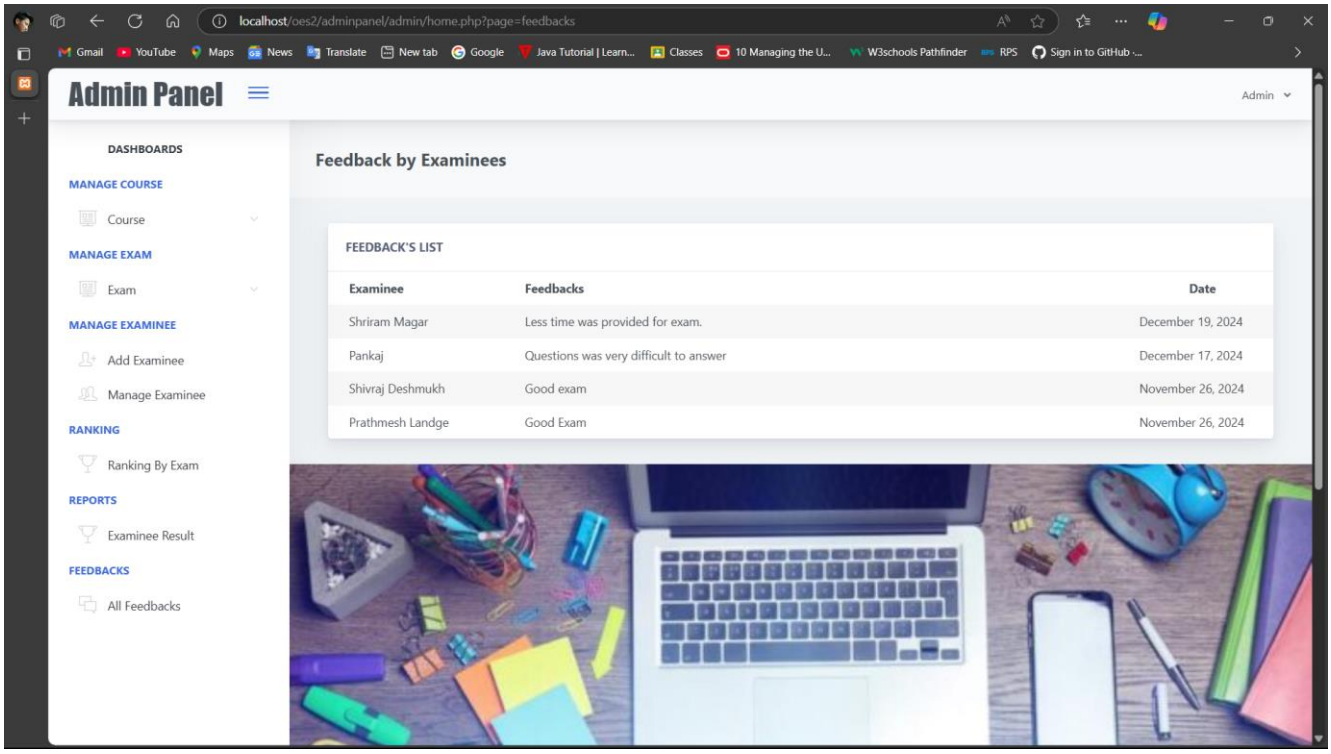
Ranking by Exam:



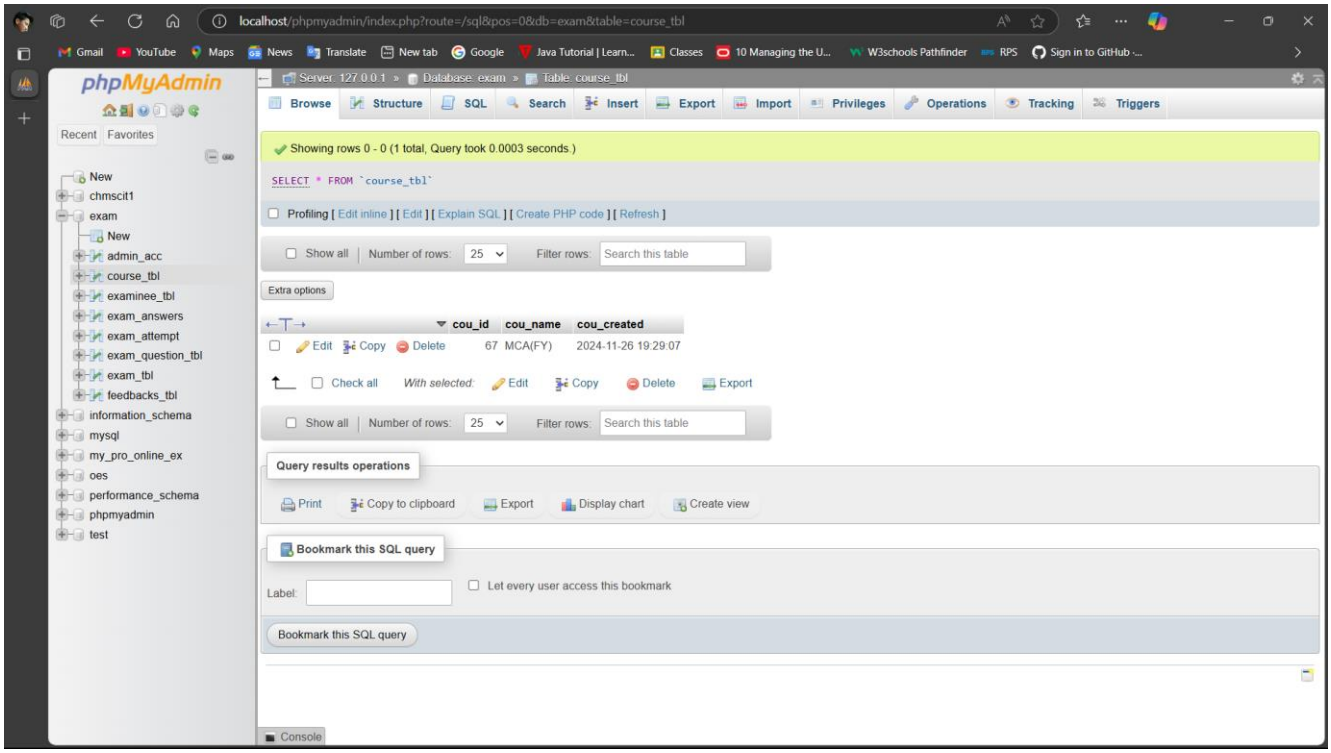
Examinee Results:

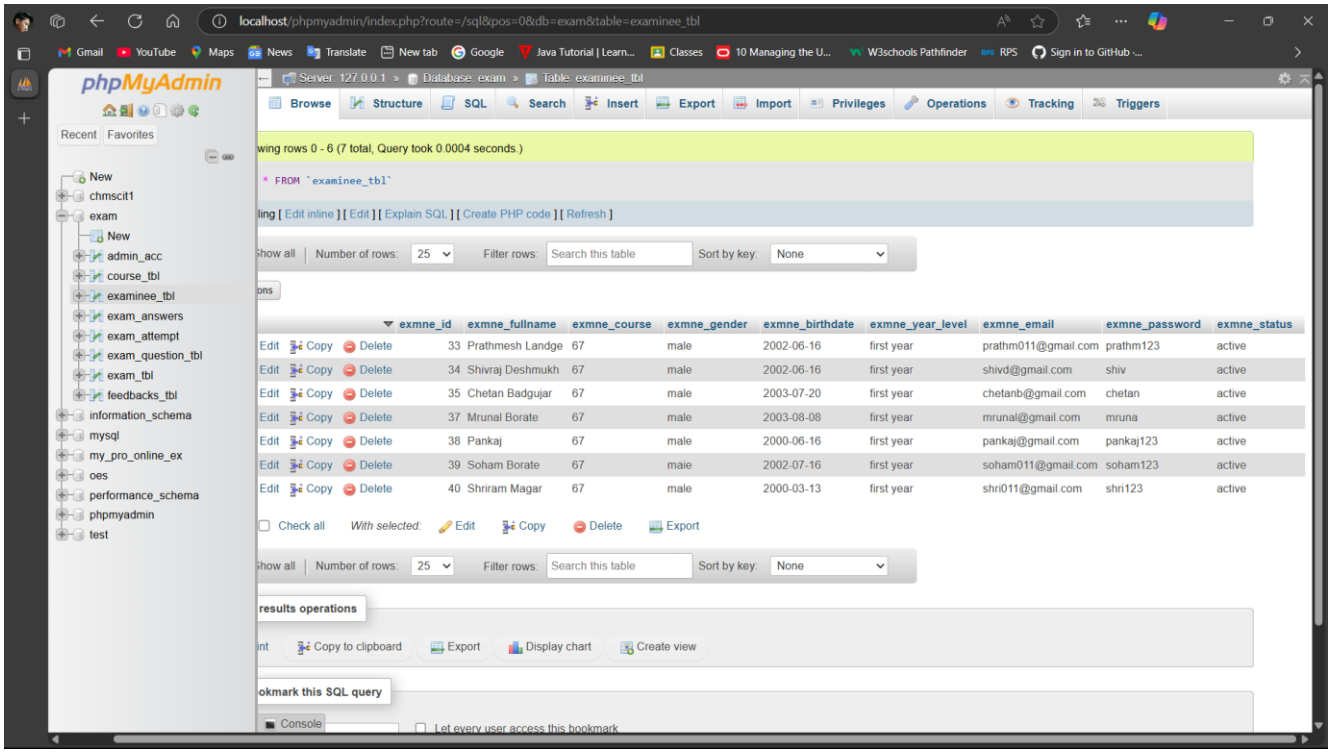


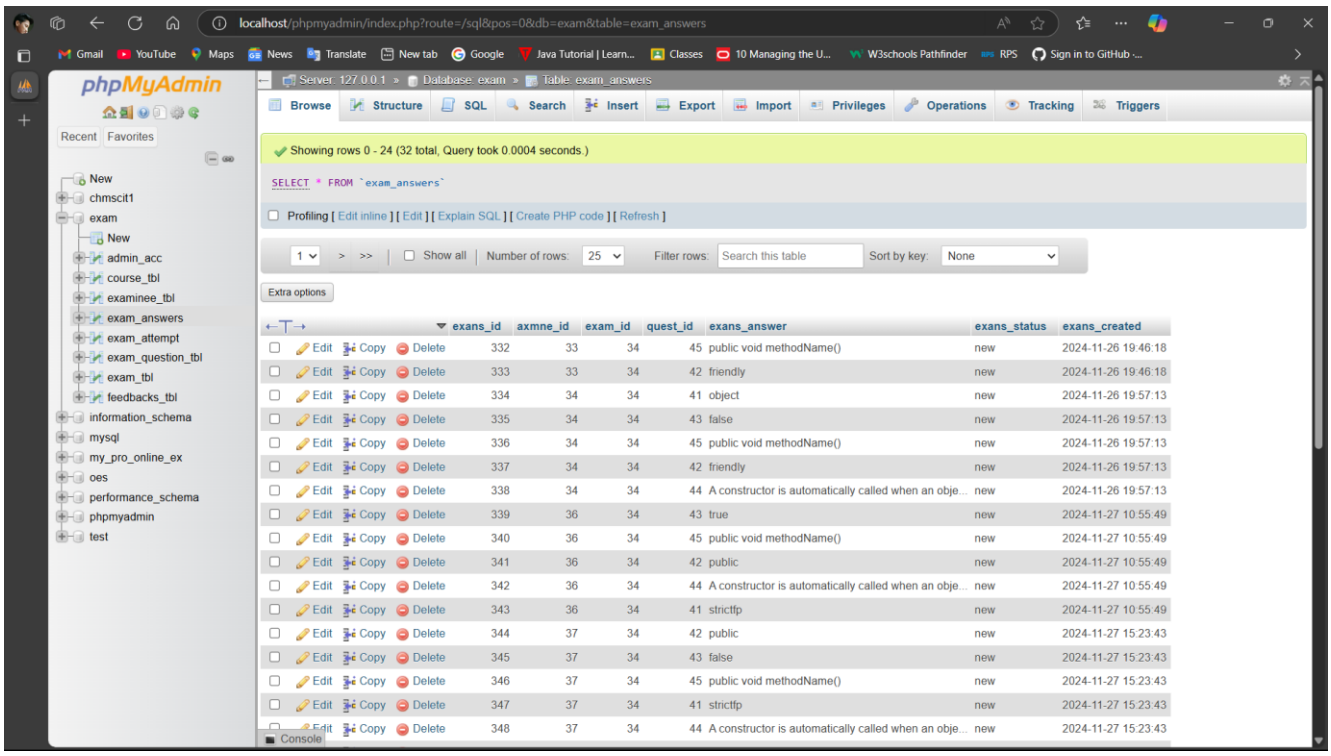
Feedback by Examinees:

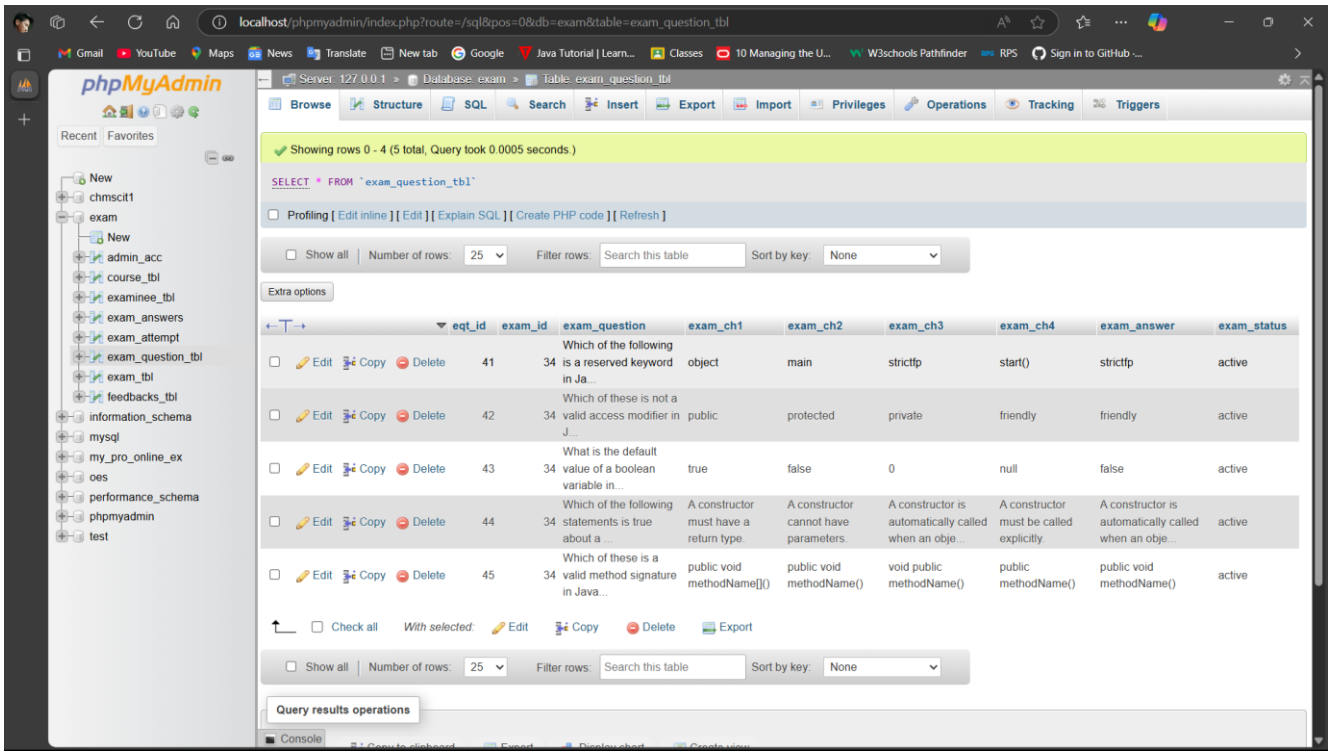


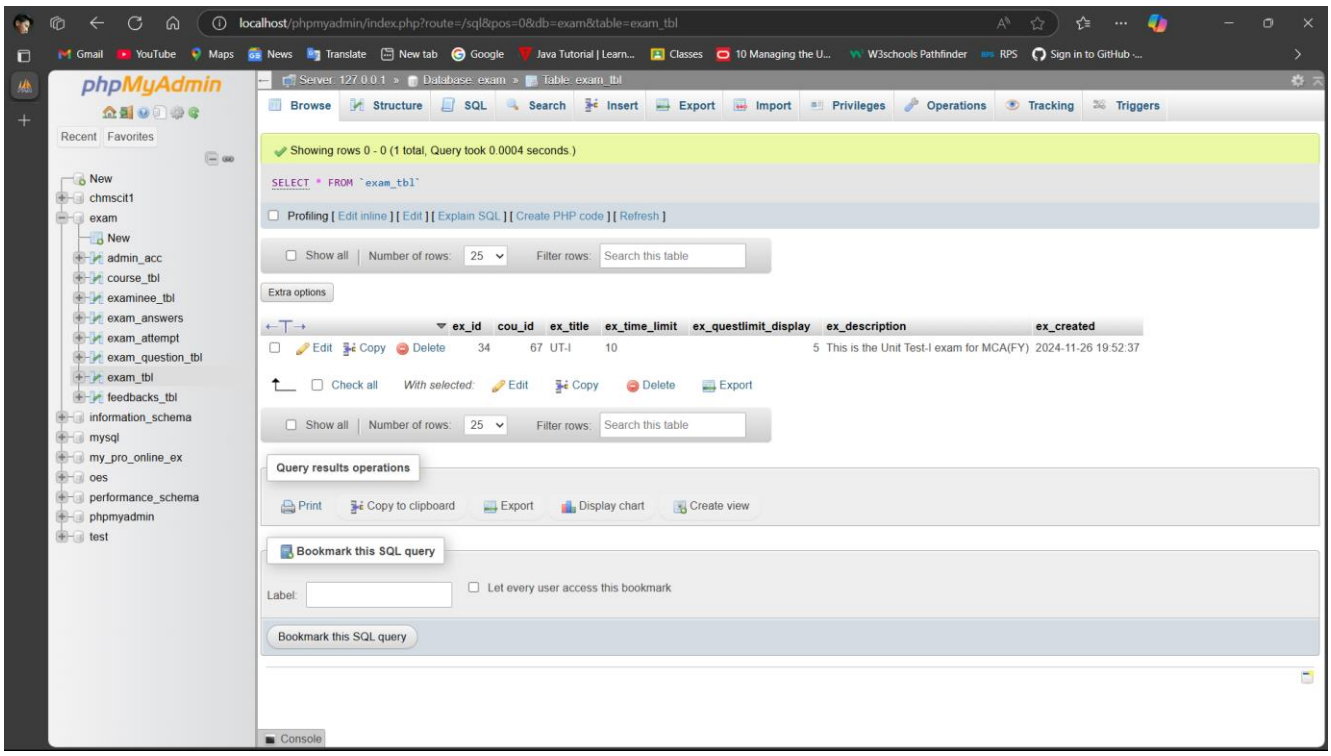
Database:

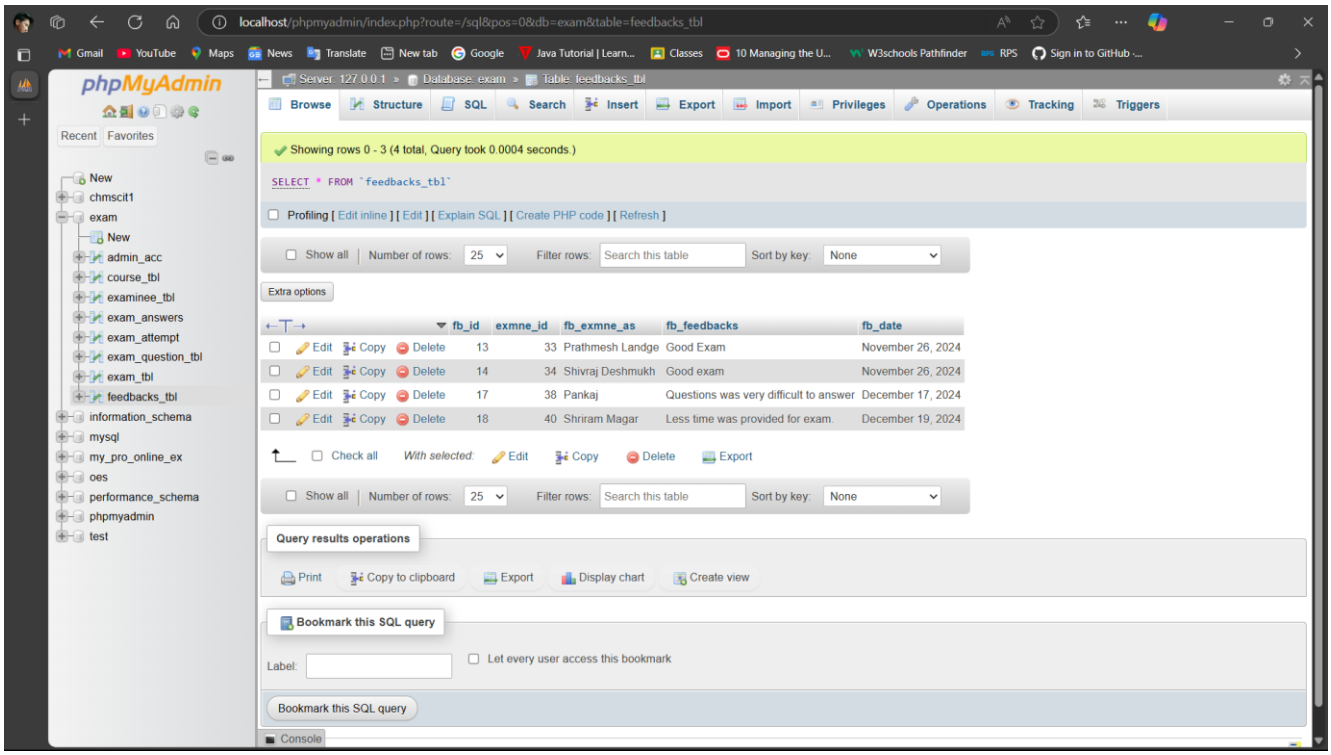

localhost/phpmyadmin/index.php?route=/sql&pos=0&db=exam&table=course_tbl
phpMyAdmin
Server: 127.0.0.1 » Database: exam » Table: course_tbl
Browse Structure SQL Search Insert Export Import Privileges Operations Tracking Triggers
Showing rows 0 - 0 (1 total, Query took 0.0003 seconds.)
SELECT * FROM `course_tbl`
Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]
Show all | Number of rows: 25 Filter rows: Search this table
Extra options
cou_id cou_name cou_created
Edit Copy Delete 67 MCA(FY) 2024-11-26 19:29:07
Check all With selected: Edit Copy Delete Export
Query results operations
Print Copy to clipboard Export Display chart Create view
Bookmark this SQL query
Label:
Let every user access this bookmark
Console


localhost/phpmyadmin/index.php?route=/sql&pos=0&db=exam&table=examinee_tbl
phpMyAdmin
Server: 127.0.0.1 » Database: exam » Table: examinee_tbl
Browse Structure SQL Search Insert Export Import Privileges Operations Tracking Triggers
exmne_id exmne_fullname exmne_course exmne_gender exmne_birthdate exmne_year_level exmne_email exmne_password exmne_status
Edit Copy Delete 33 Prathmesh Landge 67 male 2002-06-16 first year prathm011@gmail.com prathm123 active
Edit Copy Delete 34 Shivraj Deshmukh 67 male 2002-06-16 first year shivd@gmail.com shiv active
Edit Copy Delete 35 Chetan Badgujar 67 male 2003-07-20 first year chetanb@gmail.com chetan active
Edit Copy Delete 37 Mrunal Borate 67 male 2003-08-08 first year mrunal@gmail.com mruna active
Edit Copy Delete 38 Pankaj 67 male 2000-06-16 first year pankaj@gmail.com pankaj123 active
Edit Copy Delete 39 Soham Borate 67 male 2002-07-16 first year soham011@gmail.com soham123 active
Edit Copy Delete 40 Shriram Magar 67 male 2000-03-13 first year shri011@gmail.com shri123 active
Check all With selected: Edit Copy Delete Export
Copy to clipboard Export Display chart Create view
Console
Let every user access this bookmark

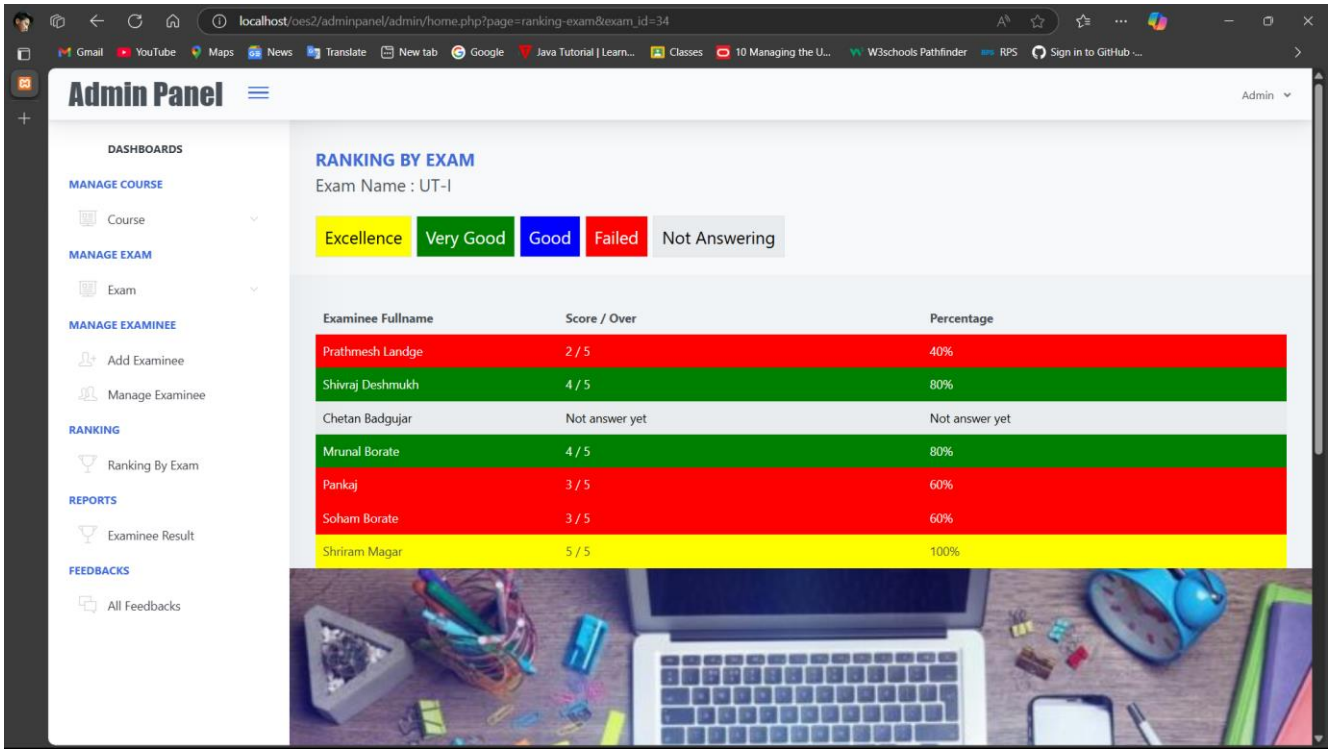

localhost/phpmyadmin/index.php?route=/sql&pos=0&db=exam&table=exam_answers
phpMyAdmin
Server: 127.0.0.1 » Database: exam » Table: exam_answers
Browse Structure SQL Search Insert Export Import Privileges Operations Tracking Triggers
Showing rows 0 - 24 (32 total, Query took 0.0004 seconds.)
SELECT * FROM `exam_answers`
Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]
Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None
Extra options
exans_id axmne_id exam_id quest_id exans_answer exans_status exans_created
332 33 34 45 public void methodName() new 2024-11-26 19:46:18
333 33 34 42 friendly new 2024-11-26 19:46:18
334 34 34 41 object new 2024-11-26 19:57:13
335 34 34 43 false new 2024-11-26 19:57:13
336 34 34 45 public void methodName() new 2024-11-26 19:57:13
337 34 34 42 friendly new 2024-11-26 19:57:13
338 34 34 44 A constructor is automatically called when an obje... new 2024-11-26 19:57:13
339 36 34 43 true new 2024-11-27 10:55:49
340 36 34 45 public void methodName() new 2024-11-27 10:55:49
341 36 34 42 public new 2024-11-27 10:55:49
342 36 34 44 A constructor is automatically called when an obje... new 2024-11-27 10:55:49
343 36 34 41 strictfp new 2024-11-27 10:55:49
344 37 34 42 public new 2024-11-27 15:23:43
345 37 34 43 false new 2024-11-27 15:23:43
346 37 34 45 public void methodName() new 2024-11-27 15:23:43
347 37 34 41 strictfp new 2024-11-27 15:23:43
348 37 34 44 A constructor is automatically called when an obje... new 2024-11-27 15:23:43


localhost/phpmyadmin/index.php?route=/sql&pos=0&db=exam&table=exam_question_tbl
phpMyAdmin
Server: 127.0.0.1 » Database: exam » Table: exam_question_tbl
Browse Structure SQL Search Insert Export Import Privileges Operations Tracking Triggers
Showing rows 0 - 4 (5 total, Query took 0.0005 seconds.)
SELECT * FROM `exam_question_tbl`
Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]
Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None
Extra options
eqt_id exam_id exam_question exam_ch1 exam_ch2 exam_ch3 exam_ch4 exam_answer exam_status
41 34 Which of the following is a reserved keyword in Ja... object main strictfp start() strictfp active
42 34 Which of these is not a valid access modifier in J... public protected private friendly friendly active
43 34 What is the default value of a boolean variable in... true false 0 null false active
44 34 Which of the following statements is true about a ... A constructor must have a return type. A constructor cannot have parameters. A constructor is automatically called when an obje... A constructor must be called explicitly. A constructor is automatically called when an obje... active
45 34 Which of these is a valid method signature in Java... public void methodName[]() public void methodName() void public methodName() public methodName() public void methodName() active
Check all With selected: Edit Copy Delete Export
Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None
Query results operations


localhost/phpmyadmin/index.php?route=/sql&pos=0&db=exam&table=exam_tbl
phpMyAdmin
Server: 127.0.0.1 » Database: exam » Table: exam_tbl
Browse Structure SQL Search Insert Export Import Privileges Operations Tracking Triggers
Showing rows 0 - 0 (1 total, Query took 0.0004 seconds.)
SELECT * FROM `exam_tbl`
Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]
Show all | Number of rows: 25 Filter rows: Search this table
Extra options
ex_id cou_id ex_title ex_time_limit ex_questlimit_display ex_description ex_created
Edit Copy Delete 34 67 UT-I 10 5 This is the Unit Test-I exam for MCA(FY) 2024-11-26 19:52:37
Check all With selected: Edit Copy Delete Export
Query results operations
Print Copy to clipboard Export Display chart Create view
Bookmark this SQL query
Label:
Let every user access this bookmark
Bookmark this SQL query
Console


localhost/phpmyadmin/index.php?route=/sql&pos=0&db=exam&table=feedbacks_tbl
phpMyAdmin
Server: 127.0.0.1 » Database: exam » Table: feedbacks_tbl
Browse Structure SQL Search Insert Export Import Privileges Operations Tracking Triggers
Showing rows 0 - 3 (4 total, Query took 0.0004 seconds.)
SELECT * FROM `feedbacks_tbl`
Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]
Show all | Number of rows: 25 Filter rows: Search this table Sort by key: None
Extra options
fb_id exmne_id fb_exmne_as fb_feedbacks fb_date
Edit Copy Delete 13 33 Prathmesh Landge Good Exam November 26, 2024
Edit Copy Delete 14 34 Shivraj Deshmukh Good exam November 26, 2024
Edit Copy Delete 17 38 Pankaj Questions was very difficult to answer December 17, 2024
Edit Copy Delete 18 40 Shriram Magar Less time was provided for exam. December 19, 2024
Check all With selected: Edit Copy Delete Export
Query results operations
Print Copy to clipboard Export Display chart Create view
Bookmark this SQL query
Label:
Let every user access this bookmark
Bookmark this SQL query
Console

4.2 Output Screens with data



4.3 Sample Project Code

Index.php

```
<!DOCTYPE html>
<html lang="en">
<head>
   <title>Examinee LOGIN</title>
   <meta charset="UTF-8">
   <meta name="viewport" content="width=device-width, initial-scale=1">
   <link rel="icon" type="login-ui/image/png" href="images/icons/favicon.ico"/>
   <link rel="stylesheet" type="text/css" href="login-ui/vendor/bootstrap/css/bootstrap.min.css">
   <link rel="stylesheet" type="text/css" href="login-ui/fonts/font-awesome-4.7.0/css/font-
awesome.min.css">
   <link rel="stylesheet" type="text/css" href="login-ui/fonts/Linearicons-Free-v1.0.0/icon-
font.min.css">
   <link rel="stylesheet" type="text/css" href="login-ui/vendor/animate/animate.css">
   <link rel="stylesheet" type="text/css" href="login-ui/vendor/css-hamburgers/hamburgers.min.css">
   <link rel="stylesheet" type="text/css" href="login-ui/vendor/select2/select2.min.css">
   <link rel="stylesheet" type="text/css" href="login-ui/vendor/daterangepicker/daterangepicker.css">
   <link rel="stylesheet" type="text/css" href="login-ui/css/util.css">
   <link rel="stylesheet" type="text/css" href="login-ui/css/main.css">
</head>
<body>

   <div class="limiter">
      <div class="container-login100 bg-info">
         <div class="wrap-login100 bg-warning"><br>
            <div>
               <center><h1>Online Examination System</h1></center>
            </div>
```

```
            <form method="post" id="examineeLoginFrm" class="login100-form validate-form">
                <div class="wrap-input100 validate-input m-b-26" data-validate="Username is required">
                    <span class="label-input100">Email</span>
                    <input class="input100" type="text" name="username" placeholder="Enter email">
                    <span class="focus-input100"></span>
                </div>

                <div class="wrap-input100 validate-input m-b-18" data-validate = "Password is required">
                    <span class="label-input100">Password</span>
                    <input class="input100" type="password" name="pass" placeholder="Enter password">
                    <span class="focus-input100"></span>
                </div>

                <div class="container-login100-form-btn" align="right">
                    <button type="submit" class="login100-form-btn">
                        Login
                    </button>
                </div>
            </form>
        </div>
    </div>
</div>

<script src="login-ui/vendor/jquery/jquery-3.2.1.min.js"></script>
<script src="login-ui/vendor/animsition/js/animsition.min.js"></script>
<script src="login-ui/vendor/bootstrap/js/popper.js"></script>
<script src="login-ui/vendor/bootstrap/js/bootstrap.min.js"></script>
<script src="login-ui/vendor/select2/select2.min.js"></script>
<script src="login-ui/vendor/daterangepicker/moment.min.js"></script>
```

```
    <script src="login-ui/vendor/daterangepicker/daterangepicker.js"></script>
    <script src="login-ui/vendor/countdowntime/countdowntime.js"></script>
    <script src="login-ui/js/main.js"></script>

</body>
</html>
```

Manange-exam.php

```
<div class="app-main__outer">
    <div class="app-main__inner">
        <div class="app-page-title">
            <div class="page-title-wrapper">
                <div class="page-title-heading">
                    <div>MANAGE EXAM</div>
                </div>
            </div>
        </div>

        <div class="col-md-12">
            <div class="main-card mb-3 card">
                <div class="card-header">ExAM List
                </div>
                <div class="table-responsive">
                    <table class="align-middle mb-0 table table-borderless table-striped table-hover"
id="tableList">
                        <thead>
                        <tr>
                            <th class="text-left pl-4">Exam Title</th>
                            <th class="text-left ">Course</th>
                            <th class="text-left ">Description</th>
```

```
                    <th class="text-left ">Time limit</th>
                    <th class="text-left ">Display limit</th>
                    <th class="text-center" width="20%">Action</th>
                  </tr>
                  </thead>
                  <tbody>
                   <?php
                    $selExam = $conn->query("SELECT * FROM exam_tbl ORDER BY ex_id
DESC ");
                    if($selExam->rowCount() > 0)
                    {
                       while ($selExamRow = $selExam->fetch(PDO::FETCH_ASSOC)) { ?>
                          <tr>
                             <td class="pl-4"><?php echo $selExamRow['ex_title']; ?></td>
                             <td>
                                <?php
                                   $courseId =  $selExamRow['cou_id'];
                                   $selCourse = $conn->query("SELECT * FROM course_tbl
WHERE cou_id='$courseId' ");
                                   while ($selCourseRow = $selCourse-
>fetch(PDO::FETCH_ASSOC)) {
                                      echo $selCourseRow['cou_name'];
                                   }
                                ?>
                             </td>
                             <td><?php echo $selExamRow['ex_description']; ?></td>
                             <td><?php echo $selExamRow['ex_time_limit']; ?></td>
                             <td><?php echo $selExamRow['ex_questlimit_display']; ?></td>
                             <td class="text-center">
                              <a href="manage-exam.php?id=<?php echo $selExamRow['ex_id'];
?>" type="button" class="btn btn-primary btn-sm">Manage</a>
                              <button type="button" id="deleteExam" data-id='<?php echo
$selExamRow['ex_id']; ?>'  class="btn btn-danger btn-sm">Delete</button>
```

```
                    </td>
                  </tr>

                <?php }
              }
              else
              { ?>
                <tr>
                  <td colspan="5">
                    <h3 class="p-3">No Exam Found</h3>
                  </td>
                </tr>
              <?php }
              ?>
            </tbody>
          </table>
        </div>
      </div>
    </div>


</div>
```

Examineeresult.php

```
<link rel="stylesheet" type="text/css" href="css/mycss.css">
<div class="app-main__outer">
    <div class="app-main__inner">
        <div class="app-page-title">
            <div class="page-title-wrapper">
```

```
            <div class="page-title-heading">
               <div>EXAMINEE RESULT</div>
            </div>
         </div>
      </div>

      <div class="col-md-12">
         <div class="main-card mb-3 card">
            <div class="card-header">Examinee Result
            </div>
            <div class="table-responsive">
               <table class="align-middle mb-0 table table-borderless table-striped table-hover" id="tableList">
                  <thead>
                  <tr>
                     <th>Fullname</th>
                     <th>Exam Name</th>
                     <th>Scores</th>
                     <th>Ratings</th>
                     <th width="10%"></th>
                  </tr>
                  </thead>
                  <tbody>
                   <?php
                     $selExmne = $conn->query("SELECT * FROM examinee_tbl et INNER JOIN exam_attempt ea ON et.exmne_id = ea.exmne_id ORDER BY ea.examat_id DESC ");
                     if($selExmne->rowCount() > 0)
                     {
                        while ($selExmneRow = $selExmne->fetch(PDO::FETCH_ASSOC)) { ?>
                           <tr>
                              <td><?php echo $selExmneRow['exmne_fullname']; ?></td>
                              <td>
```

```
                        <?php
                            $eid = $selExmneRow['exmne_id'];
                            $selExName = $conn->query("SELECT * FROM exam_tbl et INNER JOIN exam_attempt ea ON et.ex_id=ea.exam_id WHERE  ea.exmne_id='$eid' ")->fetch(PDO::FETCH_ASSOC);
                            $exam_id = $selExName['ex_id'];
                            echo $selExName['ex_title'];
                        ?>
                    </td>
                    <td>
                            <?php
                            $selScore = $conn->query("SELECT * FROM exam_question_tbl eqt INNER JOIN exam_answers ea ON eqt.eqt_id = ea.quest_id AND eqt.exam_answer = ea.exans_answer  WHERE ea.axmne_id='$eid' AND ea.exam_id='$exam_id' AND ea.exans_status='new' ");
                             ?>
                        <span>
                            <?php echo $selScore->rowCount(); ?>
                            <?php
                                $over  = $selExName['ex_questlimit_display'];
                             ?>
                        </span> / <?php echo $over; ?>
                    </td>
                    <td>
                      <?php
                            $selScore = $conn->query("SELECT * FROM exam_question_tbl eqt INNER JOIN exam_answers ea ON eqt.eqt_id = ea.quest_id AND eqt.exam_answer = ea.exans_answer  WHERE ea.axmne_id='$eid' AND ea.exam_id='$exam_id' AND ea.exans_status='new' ");
                        ?>
                        <span>
                            <?php
                                $score = $selScore->rowCount();
                                $ans = $score / $over * 100;
```

```
                                    echo "$ans";
                                    echo "%";


                                ?>
                            </span>
                        </td>
                        <td>
                            <a rel="facebox" href="facebox_modal/updateExaminee.php?id=<?php echo $selExmneRow['exmne_id']; ?>" class="btn btn-sm btn-primary">Print Result</a>


                        </td>
                    </tr>
                <?php }
            }
            else
            { ?>
                <tr>
                  <td colspan="2">
                    <h3 class="p-3">No Course Found</h3>
                  </td>
                </tr>
              <?php }
              ?>
            </tbody>
          </table>
        </div>
      </div>
    </div>


</div>
```

4.4 Bibliography

BIBLIOGRAPHY

A bibliography provides a list of the sources consulted during the development of ProcotrPro project. Below are key references that were instrumental in guiding the project:

1. Books

- 1)Lynn Beighley," Head First PHP & MySQL: A Brain-friendly Guide", O'Reilly Media, Inc, 2009
- 2) **Ash Allen**," **Battle Ready Laravel** by Ash Allen," Ash Allen, **2022**

2. Online Resources

- MySQL Documentation. (n.d.). MySQL 8.0 Reference Manual. Retrieved from [MySQL Documentation](https://dev.mysql.com/doc/refman/8.0/en/)
- Bootstrap Documentation. (n.d.). Bootstrap 5 Documentation. Retrieved from [Bootstrap](https://getbootstrap.com/docs/5.0/getting-started/introduction/)
- W3Schools. (n.d.). Learn HTML, CSS, JavaScript, and SQL. Retrieved from [W3Schools](https://www.w3schools.com/)

3. Websites Visited

- **Laravel Documentation:**
  https://laravel.com/docs/11.x
- **Composer Documentation (for managing PHP dependencies):**
  https://getcomposer.org/doc
- **Apache Server Documentation:**
  https://httpd.apache.org/docs
- **XAMPP Documentation:**
  https://www.apachefriends.org/docs

- **PHP Documentation:**
  https://www.php.net/docs.php

5. Documentations

- MySQL Connector for Python. (n.d.). MySQL Connector/Python Developer Guide. Retrieved from [MySQL](https://dev.mysql.com/doc/connector-python/en/)