Prof.V.B.Shah Institute of Management & R.V.Patel College of Commerce (Eng.Med.) & V.L.Shah College of Commerce (Guj.Med.) &

Sutex Bank College of Computer Applications & Science, Amroli

(Accredited 'B' (CGPA 2.55) by NAAC Dec.-2009)

VEER NARMAD SOUTH GUJARAT UNIVERSITY, SURAT



PROJECT REPORT ON

Online Examination System

SUBMITTED BY:

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Exam No:

Roll No: 109



PROF. V. B. SHAH INSTITUTE OF MANAGEMENT, R. V. PATEL COLLEGE OF COMMERCE (ENG. MED.), V. L. SHAH COLLEGE OF COMMERCE (GUJ. MED.) & SUTEX BANK COLLEGE OF COMPUTER APPLICATIONS & SCIENCE

Managed by Jivan Jyot Trust, Amroli.

All Colleges are Affiliated to Veer Narmad South Gujarat University, Surat.

Self Financed B.B.A. - B.Com. (Eng. & Guj. Med.) - B.C.A & B.Sc. Data Science Degree Programme

Accredited by National Assessment and Accreditation Council with "B" Grade

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Bachelor of Computer Application

Project Certificate

This is to certify that Mr. MEHUL SURESHBHAI CHAVDA Exam No: 109 (Roll No: 109) has successfully completed his Minor Work on the Title: Online Examination System for the Subject: 501-1: Advanced Web Design of the 5th Semester during the academic year 2024-25.

1-4-mal	Guide :		Ms.	Sanskruti	Ramani
Internal	Guide	i.	-		

Signature :

Date:



External Examiner:

Dr. Mukesh R. Goyani Principal

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1.Introduction

1.1 Overview:

> Project Name: ONLINE EXAMINATION SYSTEM

> Purpose:

The purpose of an online examination system is to digitally administer and manage exams, allowing for automated grading, faster results, reduced manual work, and convenient remote access to assessments, essentially streamlining the entire examination process while minimizing human error and saving time for both students and administrators.

> Technology Stack:

Html,Css,Bootstrap,MySQL,PHP,Javascript

1.2 Key Features:

- **1. Student Module:** Allows students to create accounts and log in with unique credentials. Admin Authentication: Admins and examiners can log in with secure credentials and access the system. Role-based Access Control:
- **2. Admin module:-** Admin can manage students, examiners, and other admin accounts. Exam Creation and Scheduling: Admin can create exams, define exam details (date, time, duration), and set question formats.

3. Exam Management Module:- Create Exam Papers: Admins or examiners can create exams by selecting questions from the question bank or creating new ones. Time Limit Settings: Define total exam time and time for specific sections (if applicable)..

1.3 Technical Details:-

: Frontend:

The frontend is the part of the system that interacts with users (students, admins, and examiners). It is responsible for presenting the UI/UX and enabling the user to interact with the system.

:Backend:

The backend handles the business logic, data processing, and communication between the frontend and the database. It also ensures that all user actions (like taking exams, submitting answers, and grading) are processed securely and efficiently.

:Database:

The database is where all exam data, user information, results, and other records are stored. A robust and secure database is essential to handle large volumes of data and ensure data integrity.

1.4 Benefits:

- Cost and Time Efficiency: Reduces administrative efforts, paper costs, and exam logistics.
- Accessibility: Allows students to take exams from anywhere and at any time.
- **Data Analytics**: Provides detailed performance reports for students and insights for institutions.
- **Flexibility:** Customizable exam formats and schedules to suit various needs.

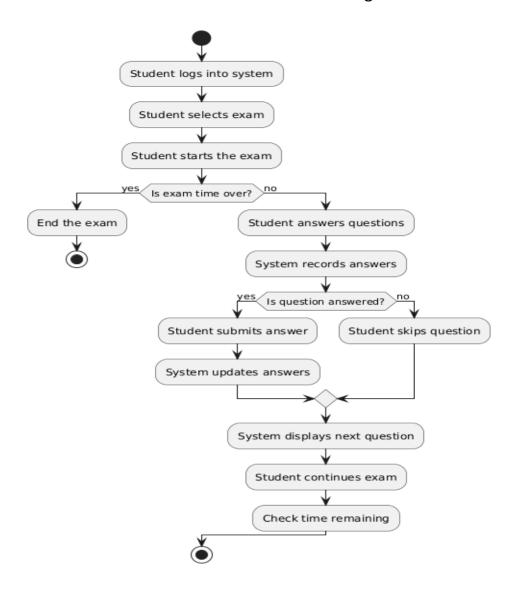
2.Diagrams

2.1 User Process Flow Diagram

This diagram shows the flow of actions for each type of user(Student, Admin, Exam management).

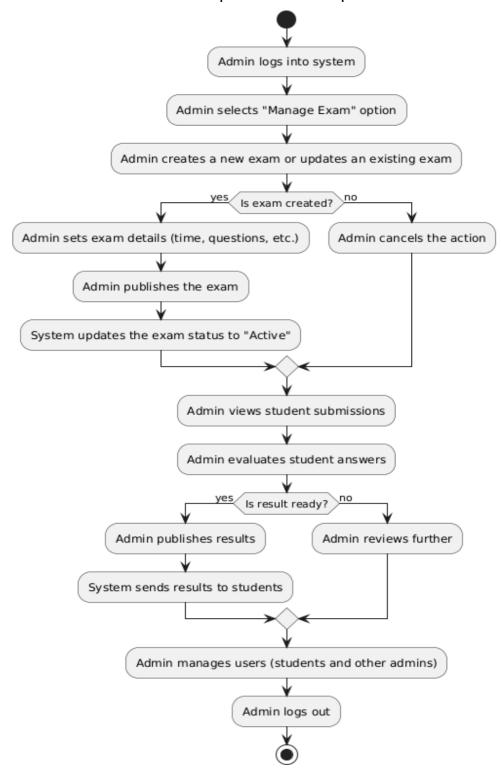
> Student Process Flow:

- 1. Login through credential given by collage.
- **2.** Navigate to the complaint submission page.
- **3.** Fill complaint form and Submit the complaint.
- **4.** View status in Dashboard for tracking.



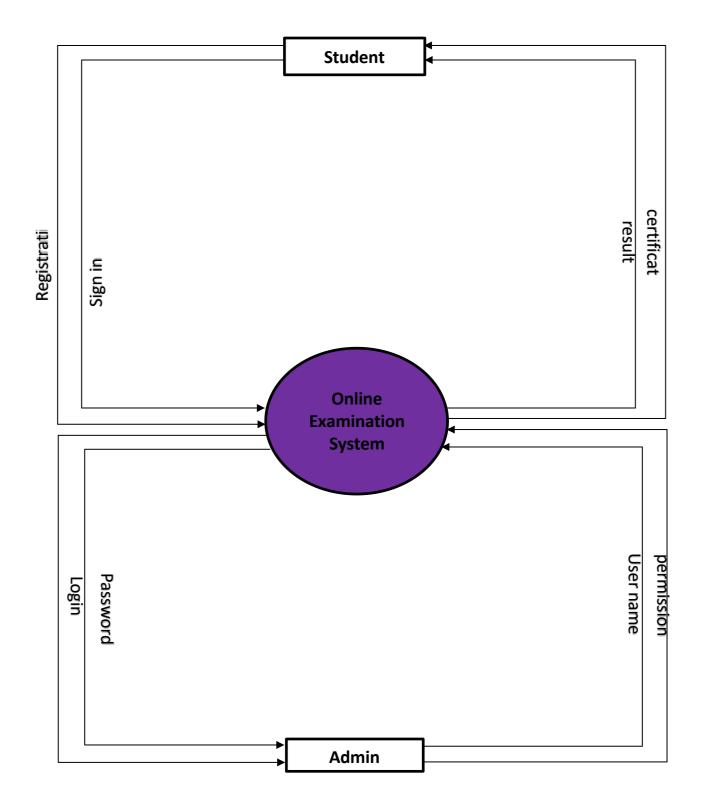
> Admin Process Flow:

- 1. Log in or register.
- 2. View all complaints in the system.
- 3. Manage user accounts (admin/student).
- 4. Oversee the complaint resolution process.



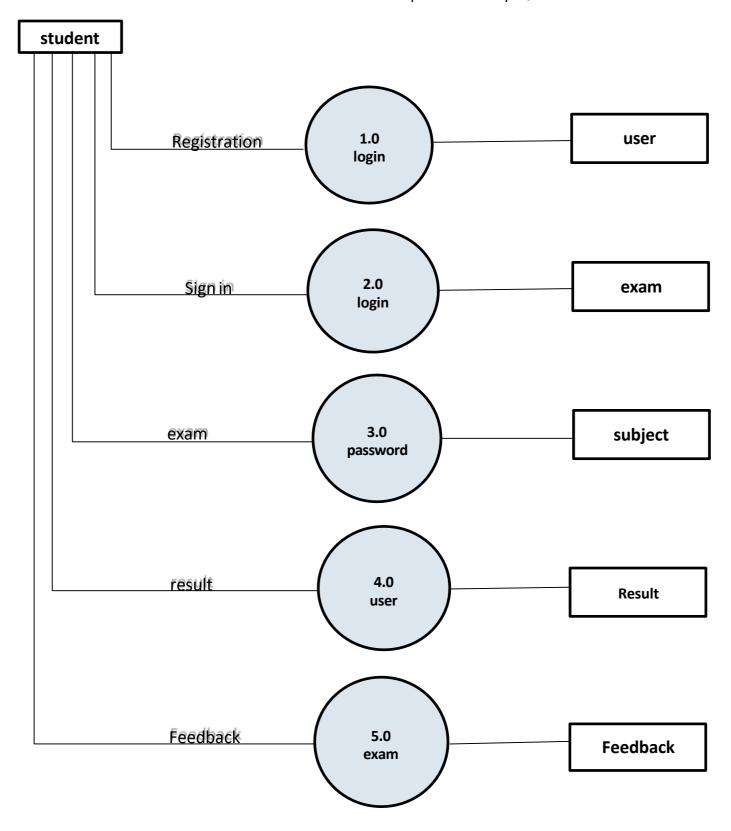
2.2 Data Flow Diagram (DFD)

This diagram shows the data flow between users (Student, Admin), the frontend, the backend server, and the database.

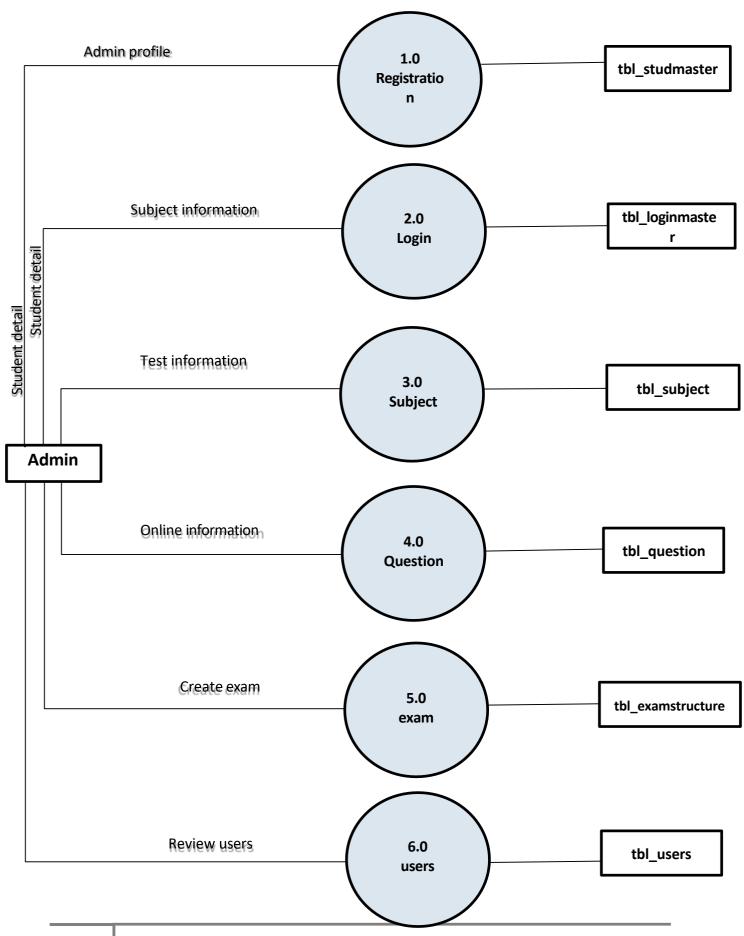


> Level 1 DFD Overview

> **Students:** Submit complaint details through the frontend, which are sent to the backend API. The backend stores the complaint in the MySQL database.



Admin: Manages users and oversees complaints. Data flows through the backend to update the database.



2.3 Entity-Relationship (ER) Diagram

The ER diagram defines the relationships between the entities in the system and how they interact within the MySQL database

Entites:

1. Admin:

• Admin_id,name,email,password.

2. Student:

• Attribute:studentID,name,email,password.

3. Exam:

Attribute:exam_ID,admin_ID,subject,date,duration,total marks.

4. Question:

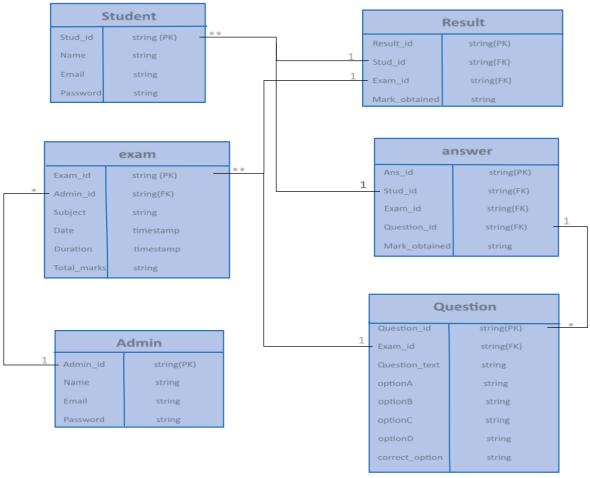
 Question_ID,exam_ID,questionTEXT,optionA,option, option,optionD,correctoption.

5. Answer:

 Answer_ID,student_ID,exam_ID,question_ID, Marksobtained.

6. Result:

• ResultID, studentID, examID, markobtain.



> Relationships:

- Student -> Answer(one to many): A student can answer multiple question in an exam.
- **student** → **Result(one to many):** A student can have multiple result, one for each exam taken.
- Exam→Qustion(one to many):An exam can contain multiple question.
- Admin→Eaxm(one to many):An admin can create mulitiple exam.
- Qustion -> Answer(one to many): A question can have multiple answer from student.

3.Installation

Prerequisites:

- MySQL
- PHP
- XAMPP

4. Setup Instructions

1. Download and Extract Files

Unzip the downloaded file.

Move the extracted folder to your local server directory:

For WAMP/XAMPP (Windows): Move it to

C:/wamp/www/ or C:/xampp/htdocs/

For MAMP (Mac): Move it to /Applications/MAMP/htdocs/

For LAMP (Linux): Move it to /var/www/html/

2. Database Configuration

Open phpMyAdmin.

 $\label{lem:create a new database named quiz_new.} \textbf{Create a new database named } \texttt{quiz_new}.$

Import the provided database file project.sql into quiz new.

3. Run the Application

Open your browser and go to:

http://localhost/online-examination-

systen-in-php-master/index.php

5. File Structure

- /backend: MYSql,PHP
- /frontend:Html,CSS,Javascript.
- /config: Config files for the database and environment variables.
- /public: Static files for the frontend.

6.Known Issues

Duplicate Complaints

- High traffic or simultaneous user logins can cause server overload, leading to slow response times or system crashes.
- Poor internet connectivity or network outages can disrupt the examination process.

7. Future Improvements

Role-Based Access Control (RBAC)

Improvement: Define different access levels for **students, teachers, and administrators**. **Benefits:** Ensures security and better management of the system.

Mobile App Integration

Improvement: Develop a mobile-friendly app for Android and iOS. **Benefits:** Increases accessibility for students using smartphones.

8. Database Design

> Admin Table:

Column Name	Data Type	Description
admin_id	INT (PK)	Unique ID for admin
Email	VARCHAR(50)	Admin email
password	VARCHAR(500)	Hashed password

➤ Users Table:

Column Name	Data Type	Description
user_id	INT (PK)	Unique user ID
Name	VARCHAR(100)	Full name of the user
Email	VARCHAR(100, UNIQUE)	User email (unique)
Password	VARCHAR(255)	Hashed password
Phone	VARCHAR(15)	Contact number
Ceated_at	TIMESTAMP	Account creation date

➤ Quiz Table:

Column Name	Data Type	Description
quiz_id	INT (PK)	Unique ID for the quiz
Title	VARCHAR(255)	Quiz title
total_questions	INT	Number of questions
time_limit	INT	Time in minutes for quiz
created_by	INT (FK → admin.admin_id)	Admin who created the quiz

> Questions Table:

Column Name	Data Type	Description
question_id	INT (PK)	Unique question ID
quiz_id	INT (FK → quiz.quiz_id)	Associated quiz ID
question_text	TEXT	Quiz question description
option1	VARCHAR(255)	Answer choice 1
Option2	VARCHAR(255)	Answer choice 2
Option3	VARCHAR(255)	Answer choice 3

> Results Table:

Column Name	Data Type	Description
result_id	INT (PK)	Unique result ID
user_id	INT (FK → users.user_id)	User who took the quiz
quiz_id	INT (FK \rightarrow quiz.quiz_id)	Quiz taken
score	INT	Score obtained
date_taken	TIMESTAMP	Quiz attempt date

> Feedback Table:

Column Name	Data Type	Description
feedback_id	INT (PK)	Unique feedback ID
user_id	INT (FK → users.user_id)	User giving feedback
message	TEXT	Feedback message
submitted_at	TIMESTAMP	Date submitted

9.System Design

About OES(online examination system):



About OES (Online Examination System)

Our Online Examination System is designed to simplify the process of conducting exams. It provides a user-friendly interface for both administrators and students. With features like automated grading, real-time results, and secure exam environments, our system ensures a seamless experience for educational institutions and organizations.





Today Online Examination System in PHP has become a fast-growing examination method because of its speed and accuracy. It is also needed less manpower to execute the examination. Almost all organizations now-a-days are conducting their objective exams by online examination system, it saves students time in examinations. Organizations can also easily check the performance of the student that they give in an examination. As a result of this, organizations are releasing results in less time. It also helps the environment by saving paper. According to today's requirement, online examination project in PHP is very useful to learn it.

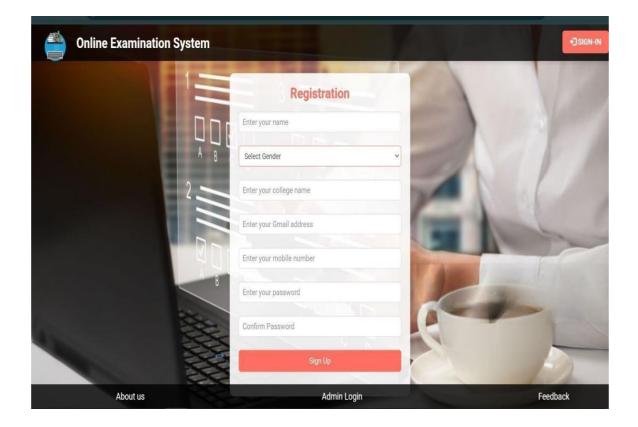
What is an Online Examination System?

In an online examination system, examinees get their user ID and password with their admit card. This ID is already saved in the examination server. When an examinee logs in to the server, they get their profile already registered. At a certain time, the examinee gets the message to start the examination. All answers given by the examinee are saved into the server with their profile information. The online examination system also allows correcting the answer if the examinee needs to change any answer during the examination time duration. However, after the time duration, any change will not be allowed. This also makes checking the answers easy and error-proof, as computers are more accurate than humans and provide fast results too. PHP is a web-based language, so we can create an online examination system in PHP.

Purpose:

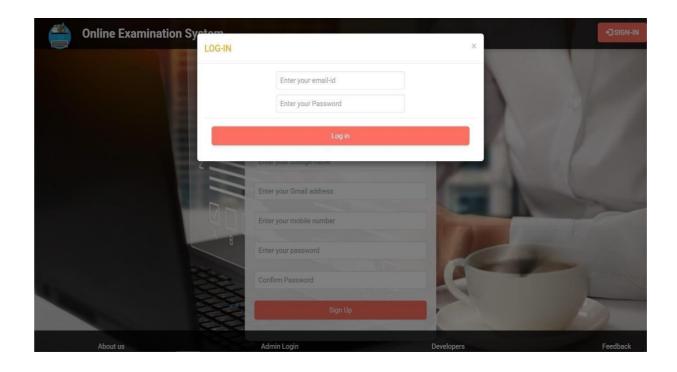
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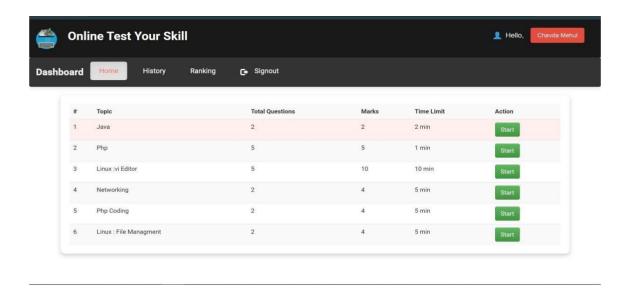
Registration Page:

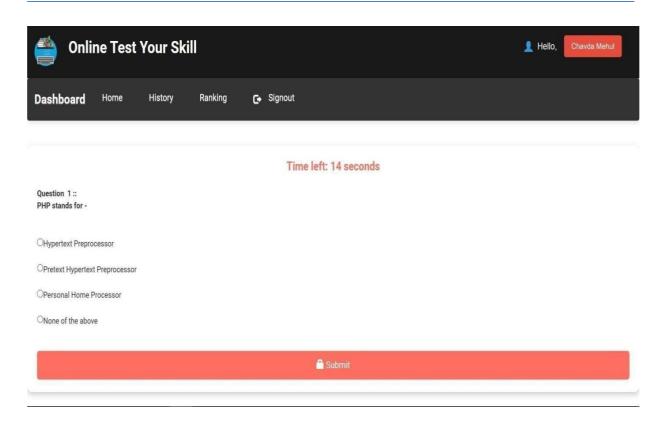


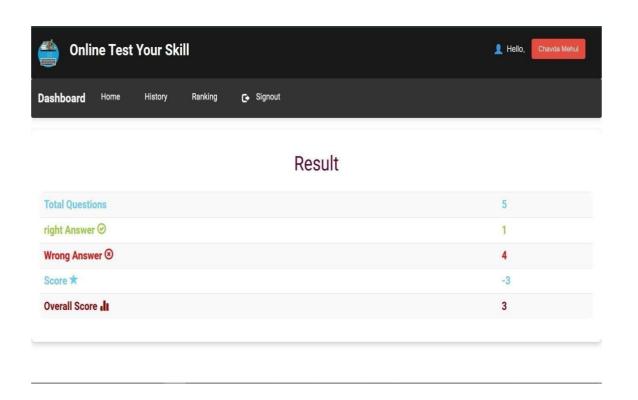
Users Dashboard

Users (student):

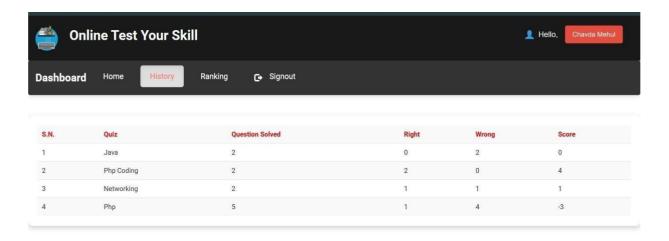




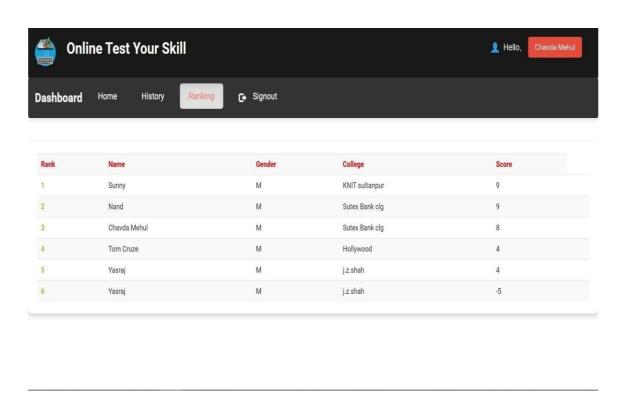




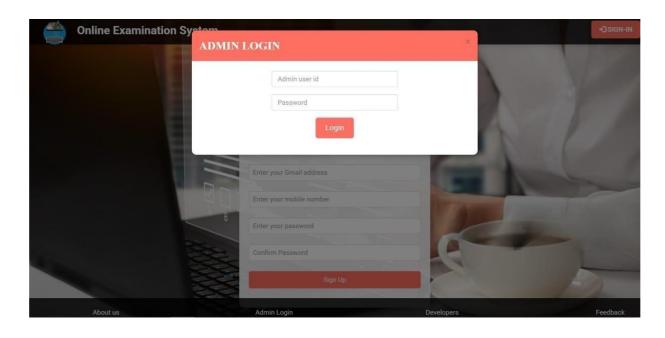
History:

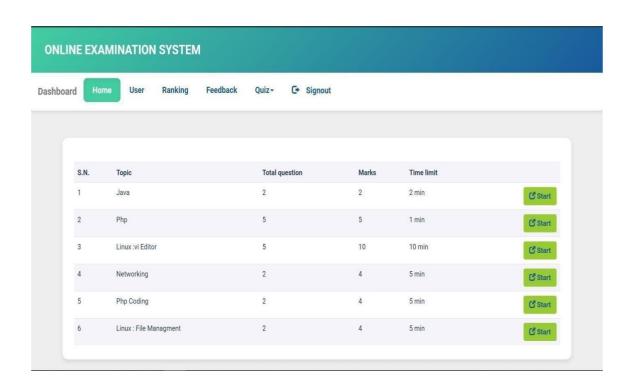


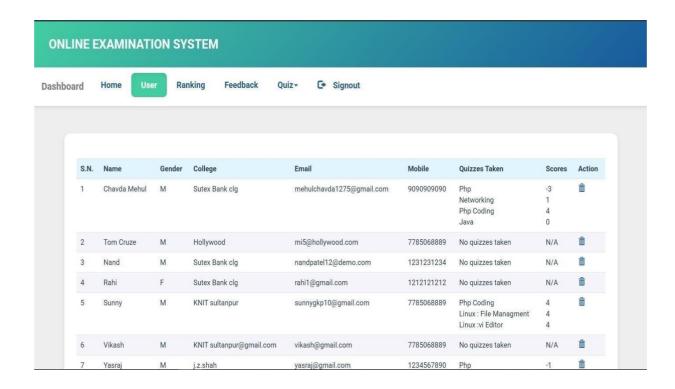
User Ranking:



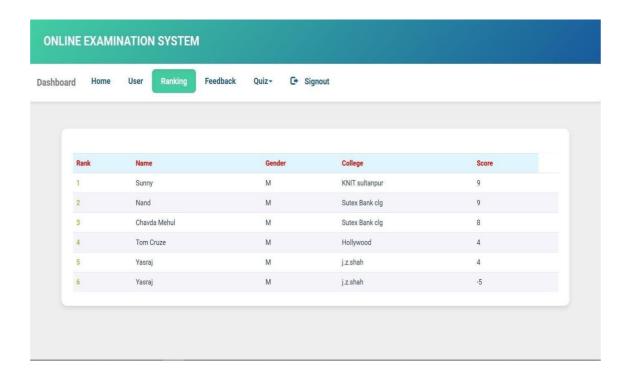
Admin login:



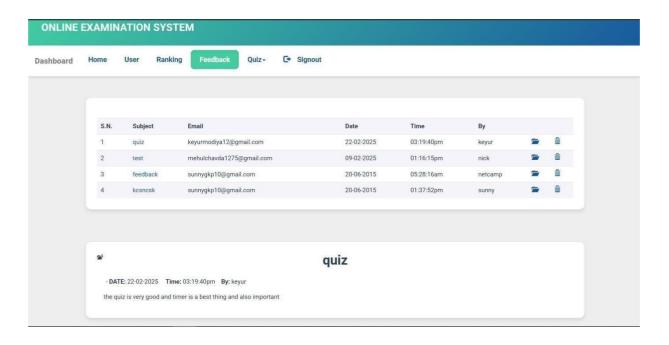




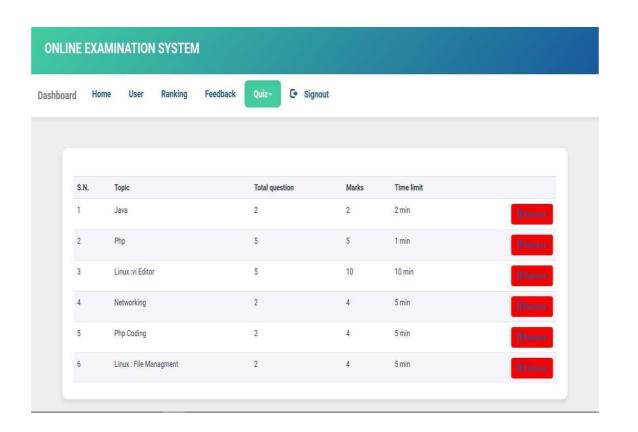
Ranking:



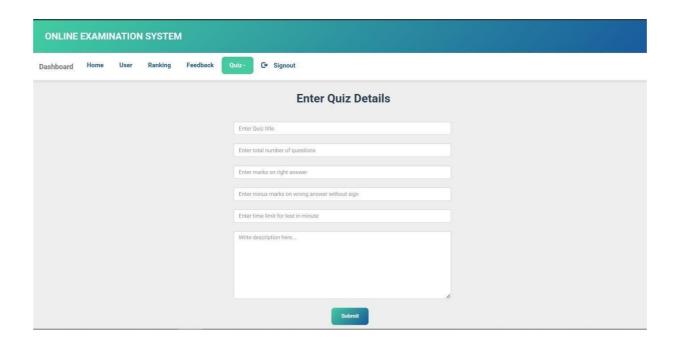
Feedback:

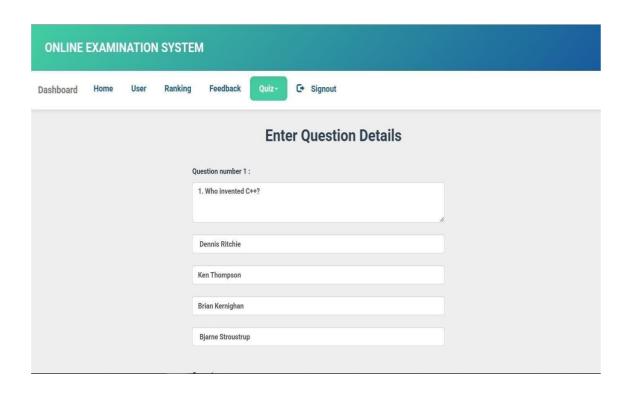


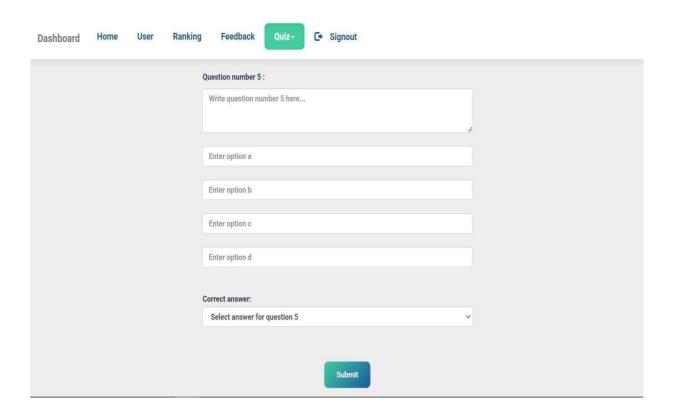
Remove Quiz:



Quiz Details:







Feedback Form:

