

ONLINE EXAMINATION SYSTEM

By Ananda Bhardwaj



PROBLEM STATEMENT

- "Traditional examination methods in India are plagued by logistical challenges, including limited seating capacity, resource constraints, and inefficient evaluation processes, resulting in delayed feedback and results for students. This leads to:
- Inefficient use of resources (time, money, and infrastructure) for educational institutions Limited accessibility and equity for students, particularly in rural or underserved areas.
- Inaccurate or delayed assessment of student performance, hindering timely intervention and improvement High levels of stress and anxiety for students and educators alike put it in points



INTRODUCTION



- An online examination system is a digital platform that enables educators to create, administer, and grade online exams and assessments.
- It offers a range of features that make exams more convenient, accessible, and secure, while providing educators with powerful tools to manage assessments and track student progress.
- It also allows monitoring of the user during the examination by video recording



PROJECT REQUIREMENT MODULE

PROJECT REQUIREMENT MODULES

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- 1. User Management Module:** This module handles user registration, authentication, and profile management. It includes features for secure login, managing personal details, contact information, and preferences.
- 2. Test Creation and Management Module:** This module allows instructors to create and manage exams. It includes features for defining exam parameters, scheduling exams, and managing availability.
- 3. Test Taking Module:** This module provides students with a user-friendly interface to access and complete exams. It includes features for tracking exam duration and auto-submission functionality.
- 4. Result and Analysis Module:** This module offers real-time result display upon exam submission, providing detailed insights into individual and group performance, score distributions, and comparative analysis.

PROJECT REQUIREMENT MODULES

- 1.Communication and Notification Module:** This module handles announcements and notifications via email, keeping users informed about system updates, exams, and results. It also collects feedback from users.
- 2.Reporting and Monitoring Module:** This module monitors exam sessions in real-time to detect and prevent cheating, tracks student progress, and provides analytics for performance tracking and improvement.
- 3.Admin Management Module:** This module allows secure management of admin accounts, including creating, modifying, and deleting accounts, managing roles and permissions, and monitoring system activity.
- 4.Security and Integrity Module:** This module maintains the integrity and security of the online examination system, including anti-cheating measures such as video recordings during exams.





SYSTEM REQUIREMENTS

SYSTEM REQUIREMENTS

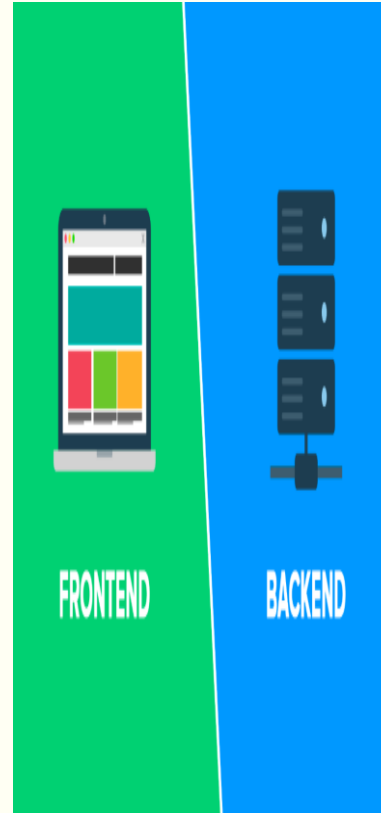
FRONTEND TECHNOLOGIES

HTML5.-HTML5 is the latest standard for structuring and presenting content on the web, with new features such as audio and video tags, canvas for graphics, and semantic tags for improved document structure and accessibility.

CSS-CSS (Cascading Style Sheets) is a stylesheet language used to describe the presentation of a webpage

JAVASCRIPT-JavaScript is a programming language used to add interactivity and dynamic functionality to webpages

BOOTSTRAP-Bootstrap is a popular CSS framework that provides pre-designed components and layouts for building responsive and mobile-first web applications



BACKEND TECHNOLOGIES

PHP-PHP (Hypertext Preprocessor) is a server-side scripting language used for web development to create dynamic and interactive web pages. It can be embedded into HTML code and executed on the server to generate dynamic content, handle user input, and interact with databases.

PHPMYADMIN-phpMyAdmin is a popular, free, open-source software platform for administration of MySQL and MariaDB databases over the web. It is primarily written in PHP for web hosting and related services, and is used for managing data-related operations such as creation, modification, deletion, and schema management. It also provides features for executing SQL queries, managing users and permissions, and importing/exporting data in various formats.

SYSTEM REQUIREMENTS

- **Hardware Requirements:**

- **OPERATING SYSTEM:**

- COMPATIBLE WITH WINDOWS 10, 11, AND POTENTIALLY WINDOWS 12

- **PROCESSOR:**

- OPTIONS RANGE FROM INTEL CORE I3 TO I5, I7, OR I9 PROCESSORS

- **STORAGE:**

- OPTIONS INCLUDE SOLID STATE DRIVES (SSD) AND HARD DISK DRIVES (HDD)
 - CAPACITIES RANGE FROM 256GB SSD TO 500GB HDD OR MORE

- **DISPLAY:**

- OPTIONS RANGE FROM STANDARD FULL HD (1920X1080) TO QUAD HD (2560X1440) OR 4K (3840X2160) DISPLAYS

- **PORT AND CONNECTIVITY:**

- OPTIONS INCLUDE USB-A PORTS, USB-C PORTS, HDMI OR DISPLAYPORT OUTPUTS, ETHERNET PORTS, WI-FI, BLUETOOTH, AND AUDIO JACKS



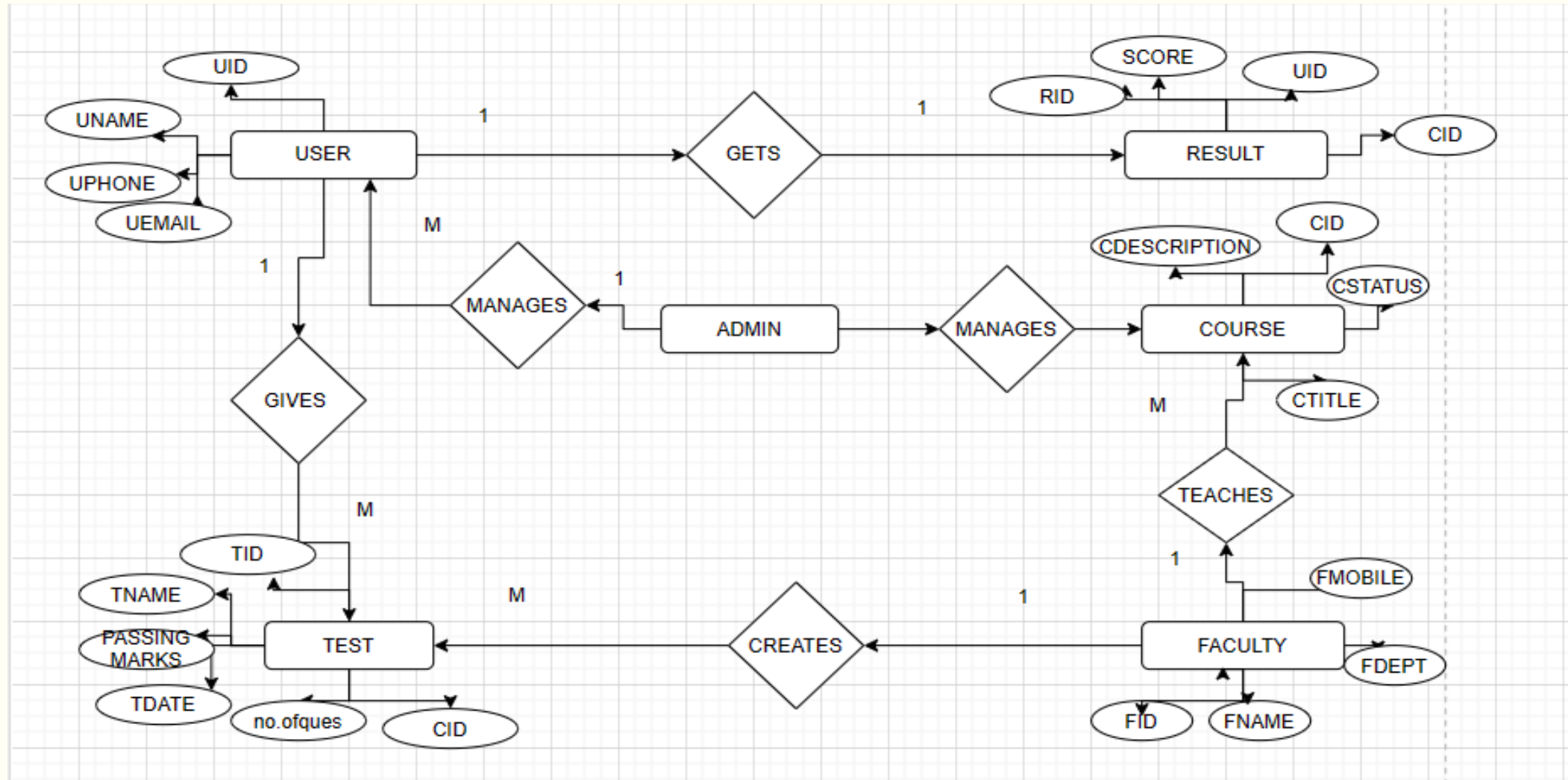


SYSTEM DESIGN

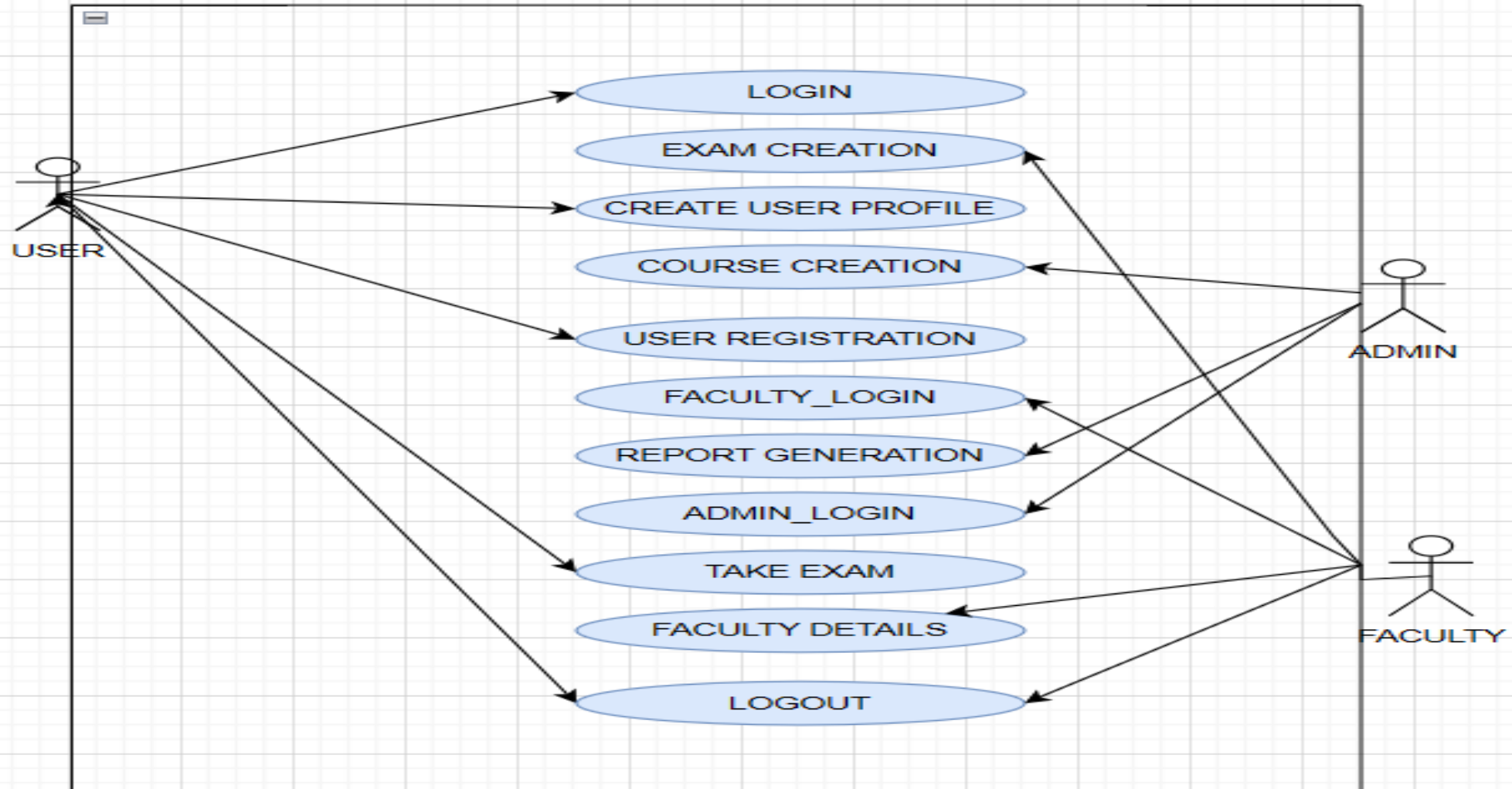
ENTITIES IN THE SYSTEM

- THE SYSTEM CONSISTS OF THREE ACTORS-
- 1.USER- IT REFERS TO THE STUDENT
- 2.FACULTY-IT REFERS TO THE FACULTY
- 3.ADMIN- IT REFERS TO THE SYSTEM ADMIN

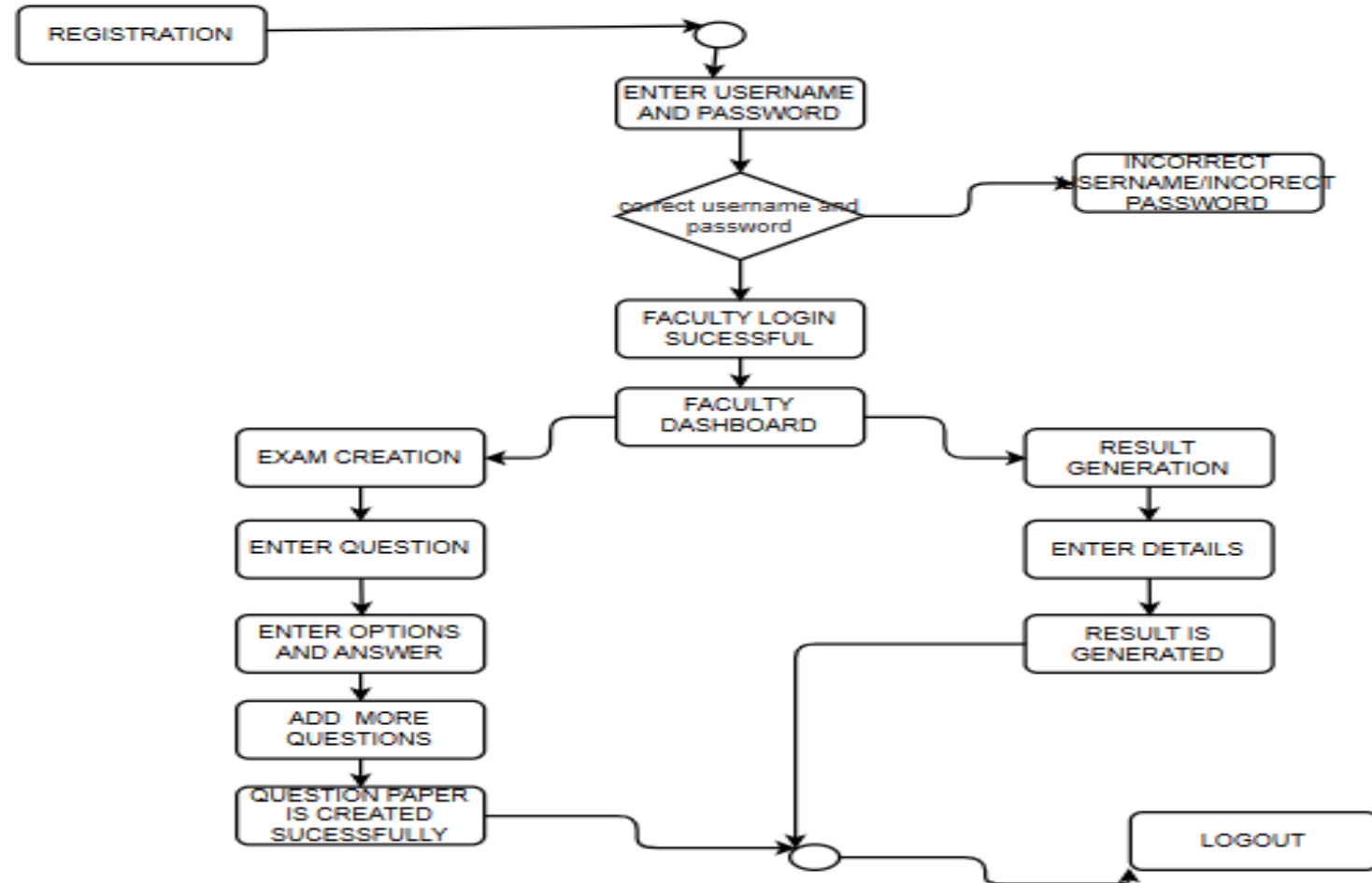
ER DIAGRAM



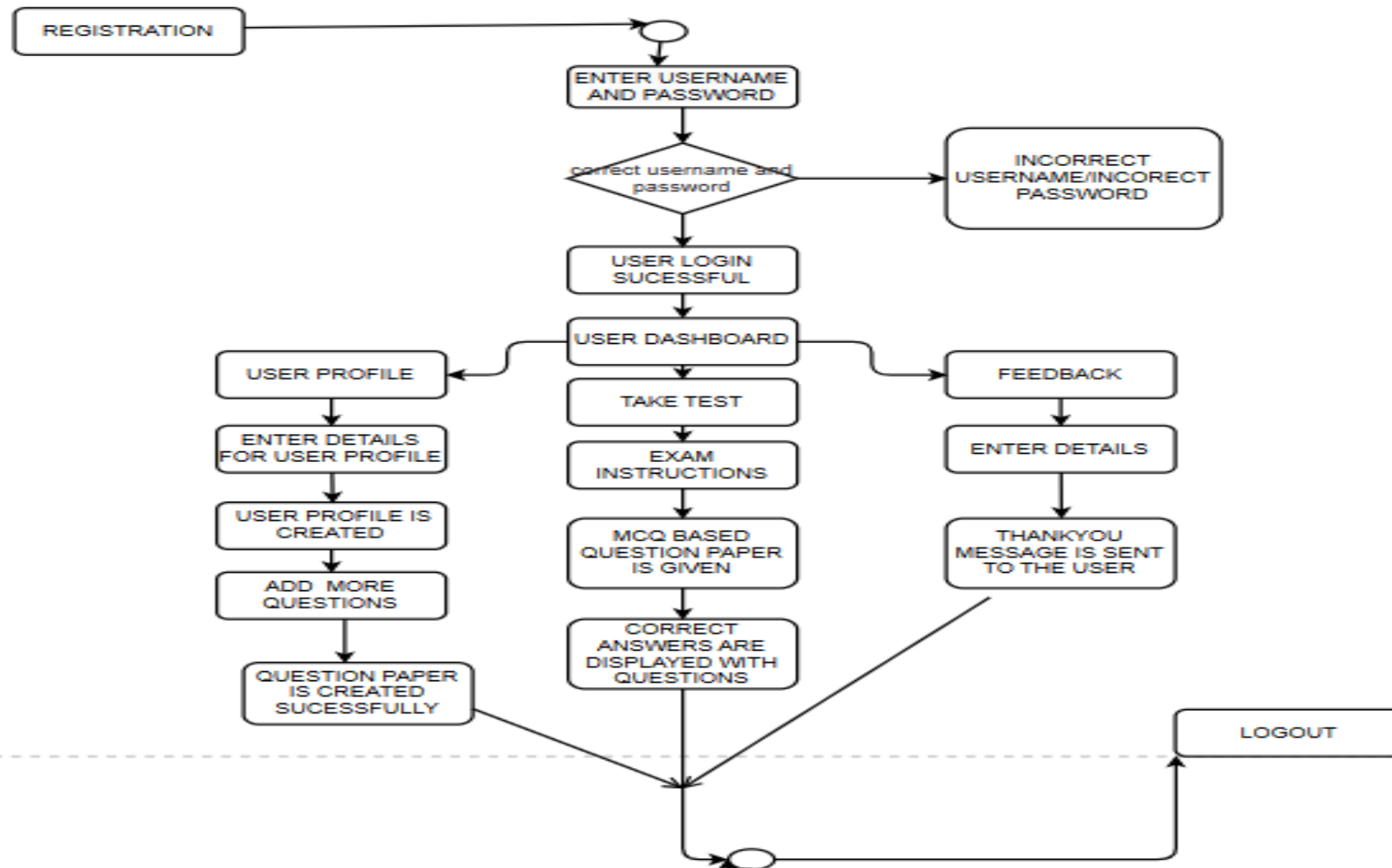
USE CASE



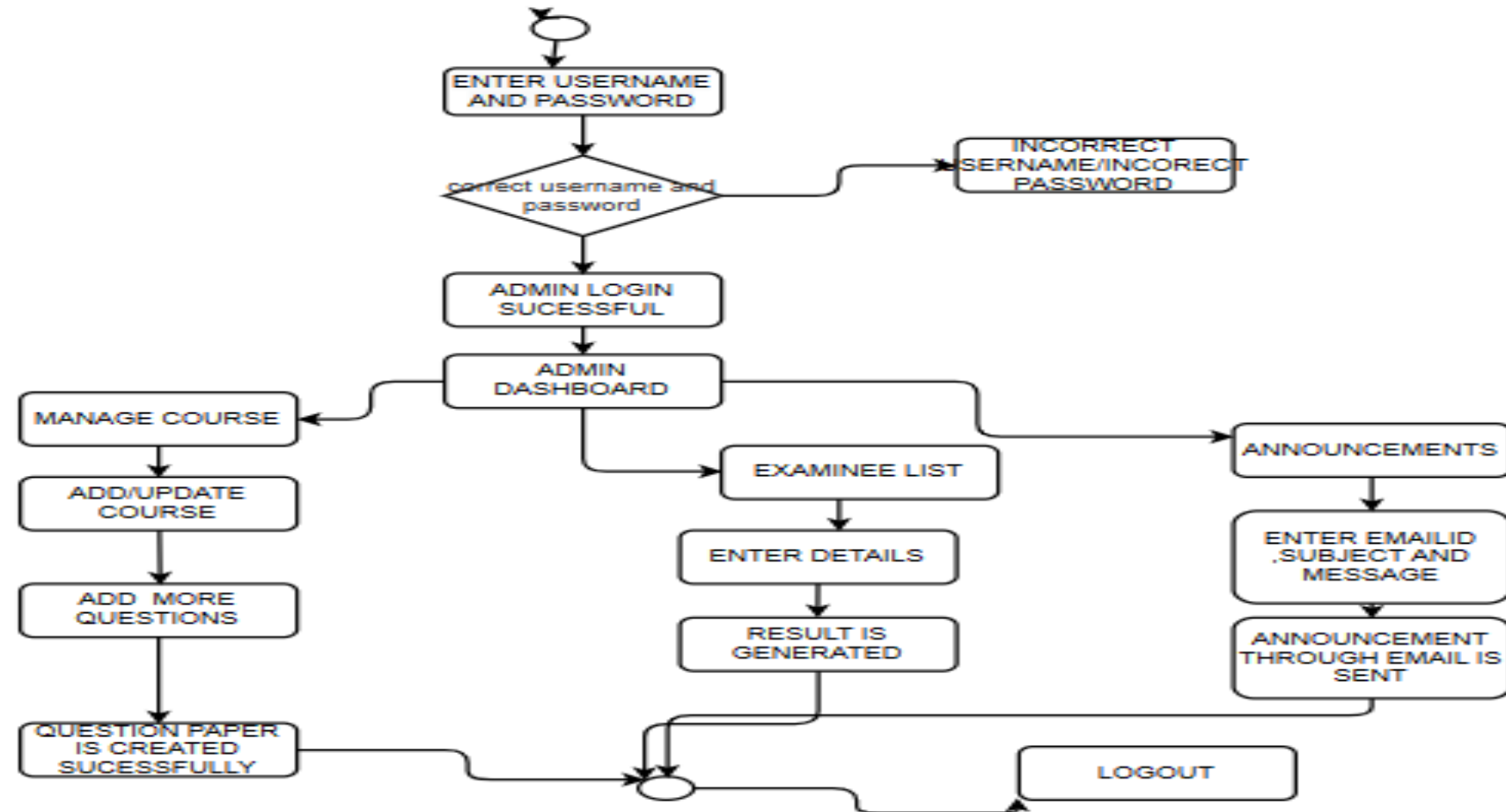
FACULTY LOGIN



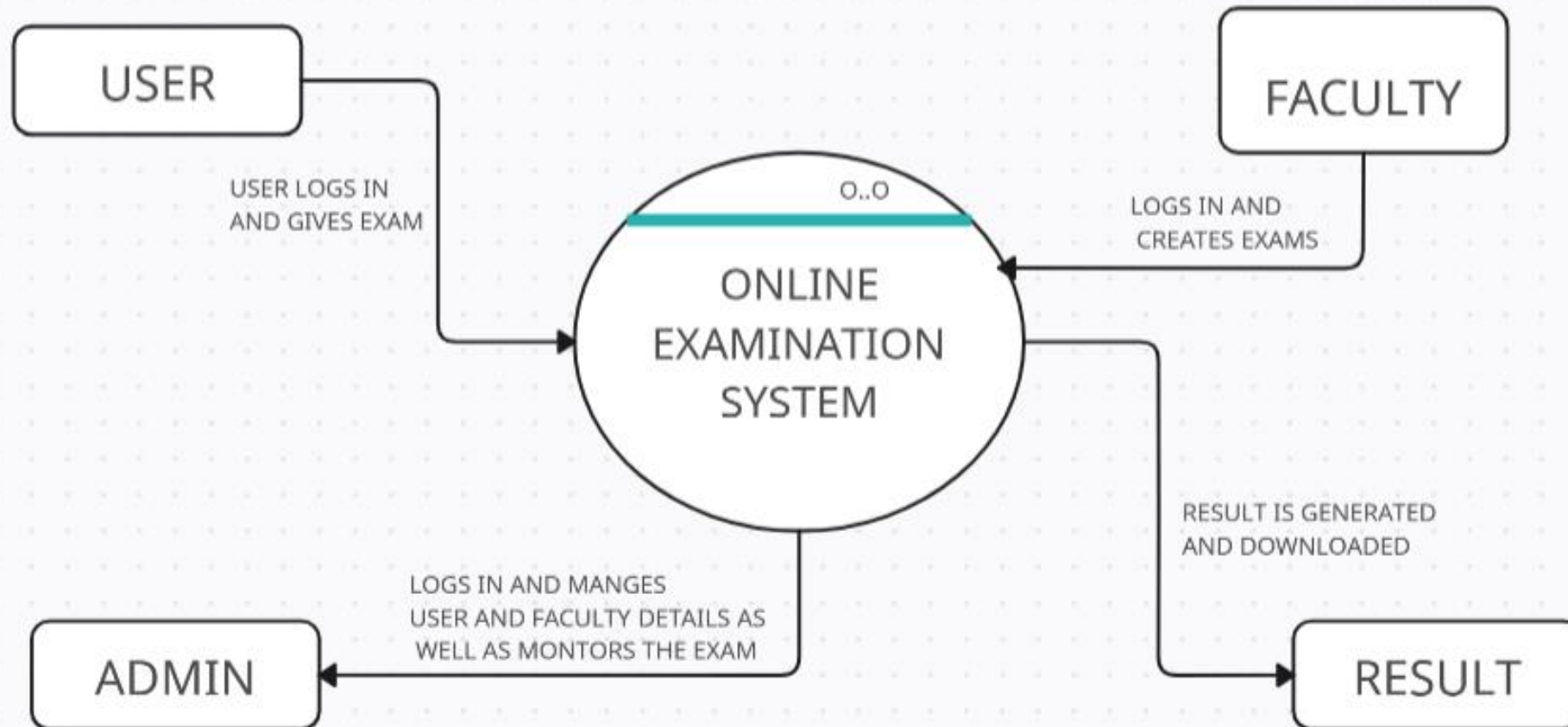
USER LOGIN



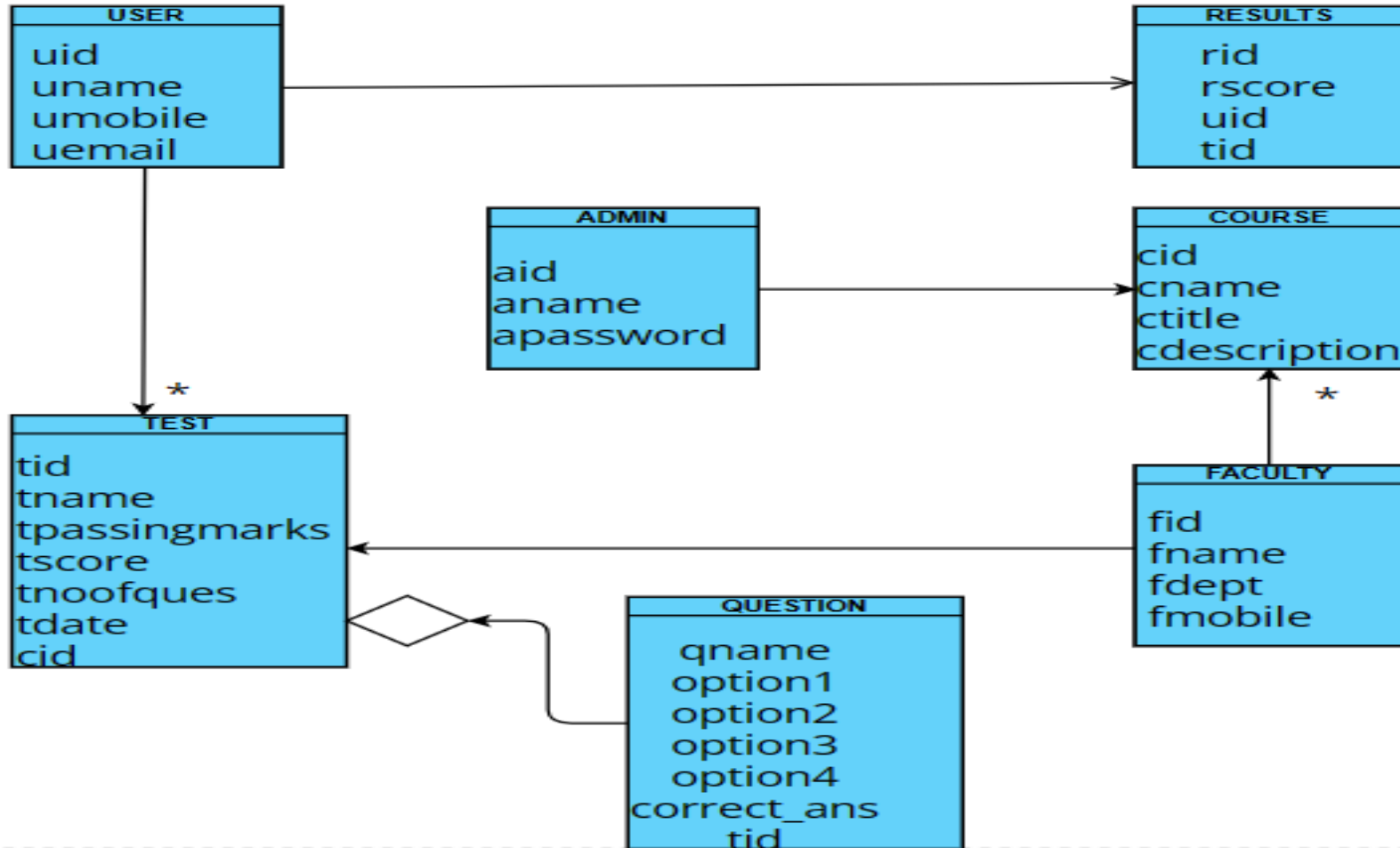
USER LOGIN



USER LOGIN



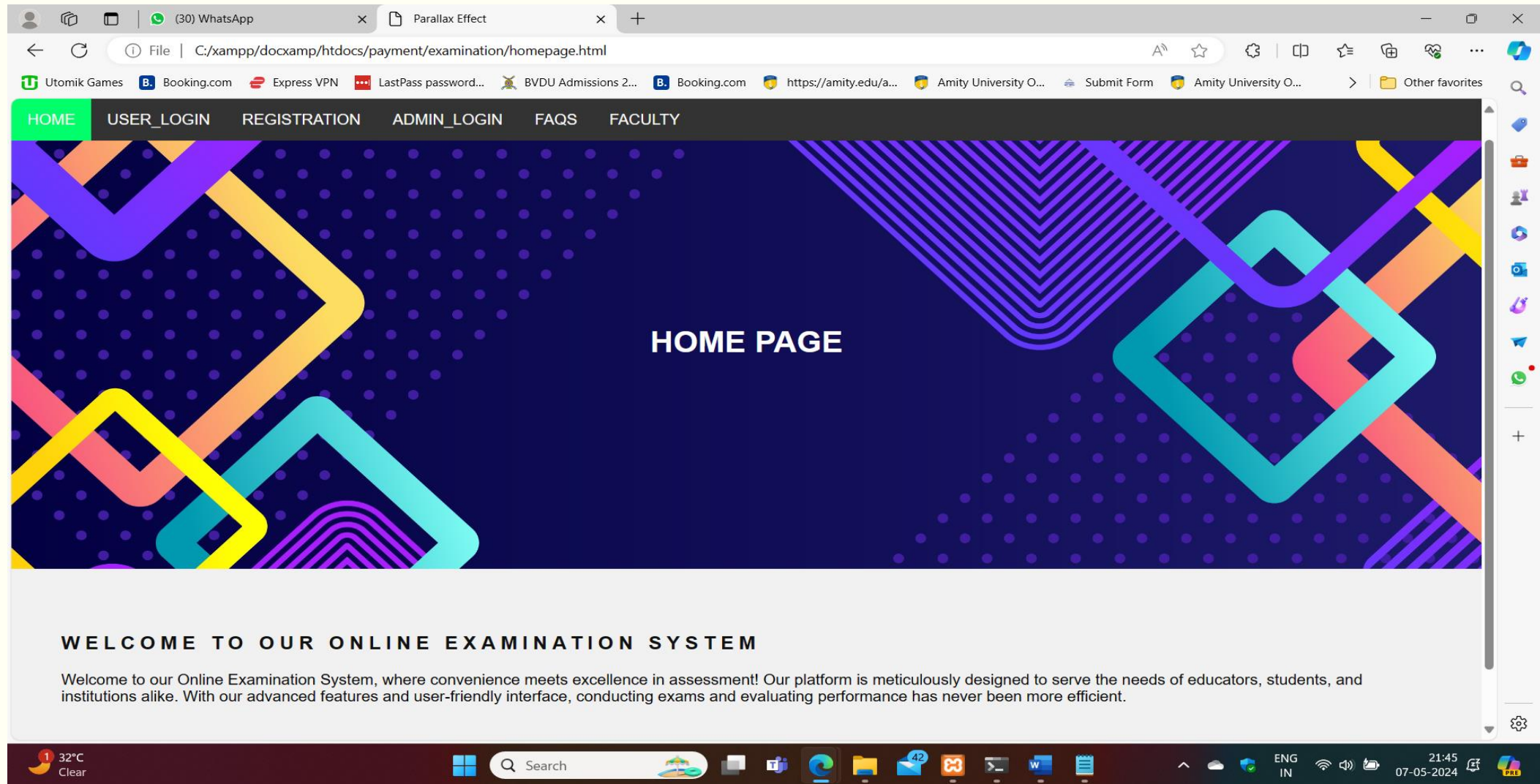
CLASS DIAGRAM





PROJECT SCREENS(SCREENSHOTS)

HOME PAGE

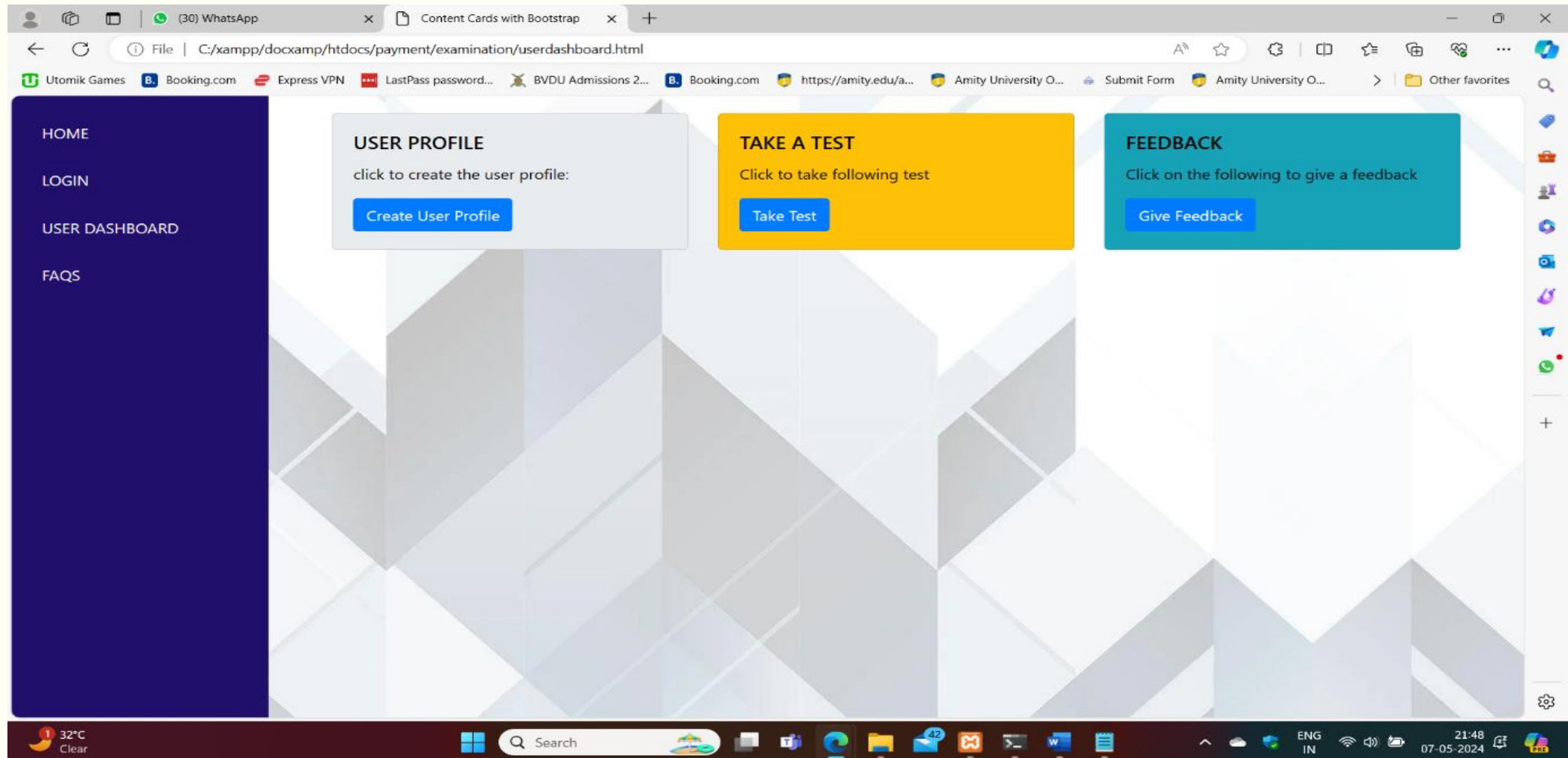


USER LOGIN

The screenshot displays a web browser window with the following elements:

- Browser Tabs:** (30) WhatsApp, Login Page.
- Address Bar:** C:/xampp/docxamp/htdocs/payment/examination/loginexam.html
- Navigation Bar:** HOME, **USER_LOGIN** (highlighted), FAQS, REGISTRATION.
- Main Content Area:** A large, intricate mandala pattern in blue and gold.
- Login Form:**
 - Title:** USER_LOGIN
 - Username Field:** Labeled "Username" with a placeholder "Enter Username".
 - Password Field:** Labeled "Password" with a placeholder.
 - Login Button:** A solid orange button labeled "Login".
- System Tray:** Shows a temperature of 32°C, a search bar, and various application icons.

USER(STUDENT) DASHBOARD



INSTRUCTIONS

The screenshot shows a web browser window with the address bar displaying `file:///C:/xampp/docxamp/htdocs/payment/examination/instructions.html`. The page title is "Exam Instructions". A notification box in the center reads "This page says Exam started!" with an "OK" button. Below the notification, a light blue box contains the following instructions:

Instructions:

- This exam consists of **30 multiple-choice questions** with a total duration of **60 minutes**.
- Each question has **4 options**, out of which **only one is correct**.
- You must answer all questions within the allotted time.
- You can navigate between questions using the **Next** and **Previous** buttons.
- Questions marked for review will be shown separately for easy revision.
- Once you submit the exam, you cannot make any changes.
- Ensure a stable internet connection throughout the exam.
- Good luck!

At the bottom of the instructions box is a blue button labeled "Start Exam". The browser's taskbar at the bottom shows the system clock as 21:49 on 07-05-2024, with a temperature of 32°C and a clear sky.

EXAM

The screenshot shows a web browser window with the address bar displaying the file path `C:/xampp/docxamp/htdocs/payment/examination/dsaquestionpaper1.html`. A file access warning dialog is open, asking for permission to use microphones and cameras, with 'Allow' and 'Block' buttons. The page content includes a 'Logout' button, a 'Start Video' button, and a section titled 'Choice Quiz'.

Choice Quiz

...

1. What is a stack in DSA?
 - ☐ A. A linear data structure with FIFO access
 - ☐ B. A linear data structure with LIFO access
 - ☐ C. A non-linear data structure
 - ☐ D. A data structure for sorting
2. What is the time complexity of linear search?
 - ☐ A. $O(n)$
 - ☐ B. $O(\log n)$
 - ☐ C. $O(1)$
 - ☐ D. $O(n^2)$
3. Which data structure uses Last-In-First-Out (LIFO) order?
 - ☐ A. Queue
 - ☐ B. Stack
 - ☐ C. Heap
 - ☐ D. Linked List
4. Which sorting algorithm has the best time complexity for average cases?

USER PROFILE

Browser tabs: (30) WhatsApp, User Profile Page

Address bar: File | C:/xampp/docxamp/htdocs/payment/examination/userprofile.html

Navigation: HOME, LOGIN, USER DASHBOARD, FAQs, REGISTRATION

User Profile [Change Photo](#)

Name:

Email:

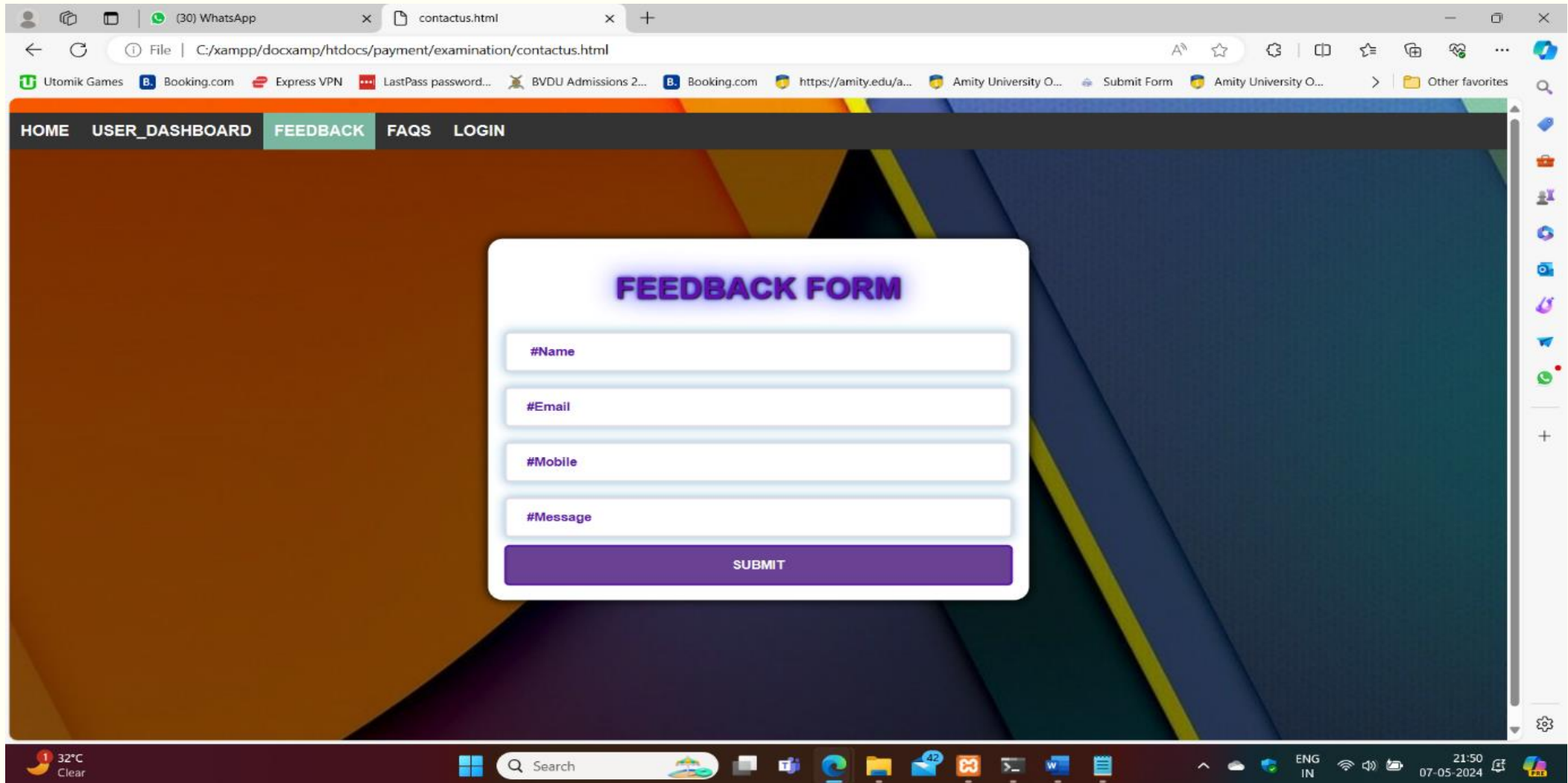
Mobile:

Roll No:

[Update Details](#)

Windows taskbar: 32°C Clear, Search, 07-05-2024, 21:49

FEEDBACK FORM



The screenshot shows a web browser window with a single tab titled 'contactus.html'. The address bar shows the file path 'C:/xampp/docxamp/htdocs/payment/examination/contactus.html'. The browser's bookmark bar contains several links, including 'Utomik Games', 'Booking.com', 'Express VPN', 'LastPass password...', 'BVDU Admissions 2...', 'Amity University O...', and 'Submit Form'. The website's navigation menu includes 'HOME', 'USER_DASHBOARD', 'FEEDBACK' (which is highlighted), 'FAQS', and 'LOGIN'. The main content area features a 'FEEDBACK FORM' with four input fields labeled '#Name', '#Email', '#Mobile', and '#Message', and a purple 'SUBMIT' button. The Windows taskbar at the bottom shows the system clock as 21:50 on 07-05-2024, with a temperature of 32°C and a 'Clear' button.

contactus.html

File | C:/xampp/docxamp/htdocs/payment/examination/contactus.html

Utomik Games Booking.com Express VPN LastPass password... BVDU Admissions 2... Booking.com https://amity.edu/a... Amity University O... Submit Form Amity University O... Other favorites

HOME USER_DASHBOARD FEEDBACK FAQS LOGIN

FEEDBACK FORM

#Name

#Email

#Mobile

#Message

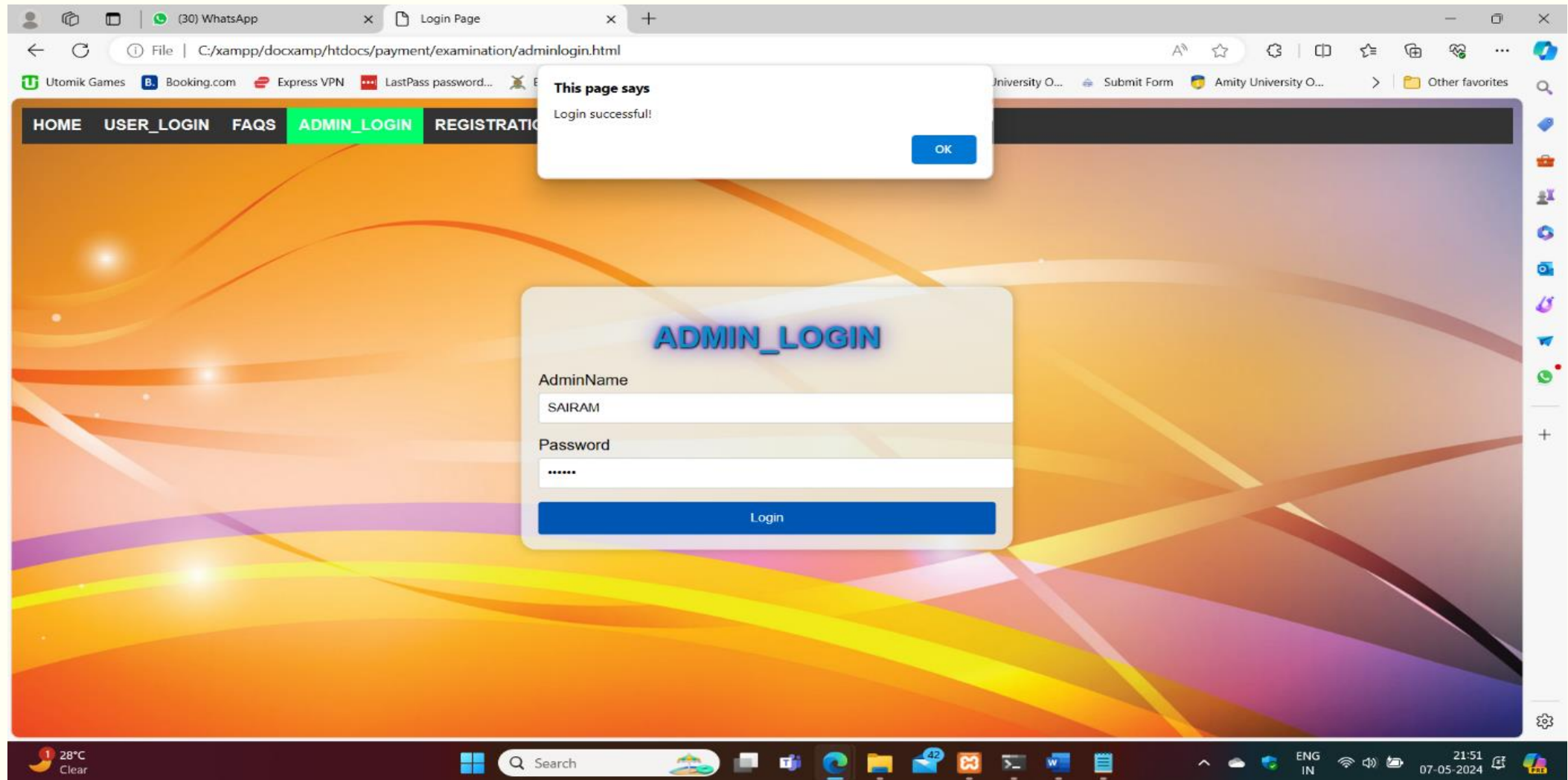
SUBMIT

32°C Clear

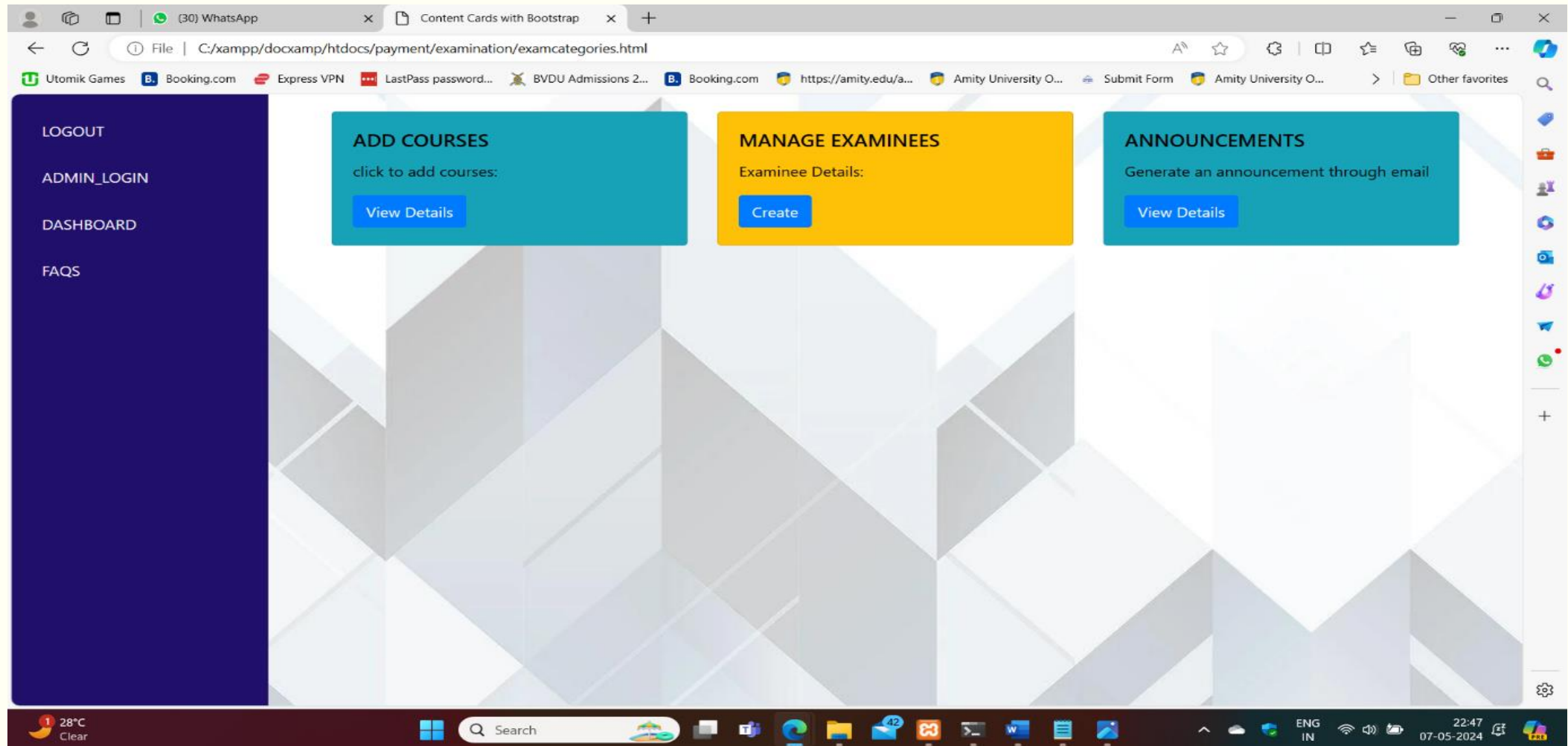
Search

ENG IN 21:50 07-05-2024

ADMIN LOGIN



ADMIN DASHBOARD



CREATE COURSE

Dashboard

Courses

Students

Add Course

This page says
Enter the name of the new course:

OK Cancel

Course List

Course Name	Status	Action
Course 1	Active	<button>Update</button> <button>Remove</button>
Course 2	Inactive	<button>Update</button> <button>Remove</button>

28°C Clear

Search

ENG IN

21:51 07-05-2024

MANAGE EXAMINEES

Home

Login

USER_DASHBOARD

FEEDBACK FORM

Examinee Details

Name	Gender	Roll No	Mobile	Email	Password	Actions
John Doe	Male	101	1234567890	johndoe@example.com	*****	<div>Update</div>
Jane Smith	Female	102	9876543210	janesmith@example.com	*****	<div>Update</div>
Michael Johnson	Male	103	5551234567	michaeljohnson@example.com	*****	<div>Update</div>
Sarah Williams	Female	104	9879879870	sarahwilliams@example.com	*****	<div>Update</div>
David Brown	Male	105	1239874560	davidbrown@example.com	*****	<div>Update</div>

28°C

Clear

Search

ENG

IN

21:52

07-05-2024

EMAIL NOTIFICATION

HOME

LOGIN

DASHBOARD

REPORT GENERATION

EMAIL NOTIFICATION

To Email:

pbgeeta@gmail.com

Subject:

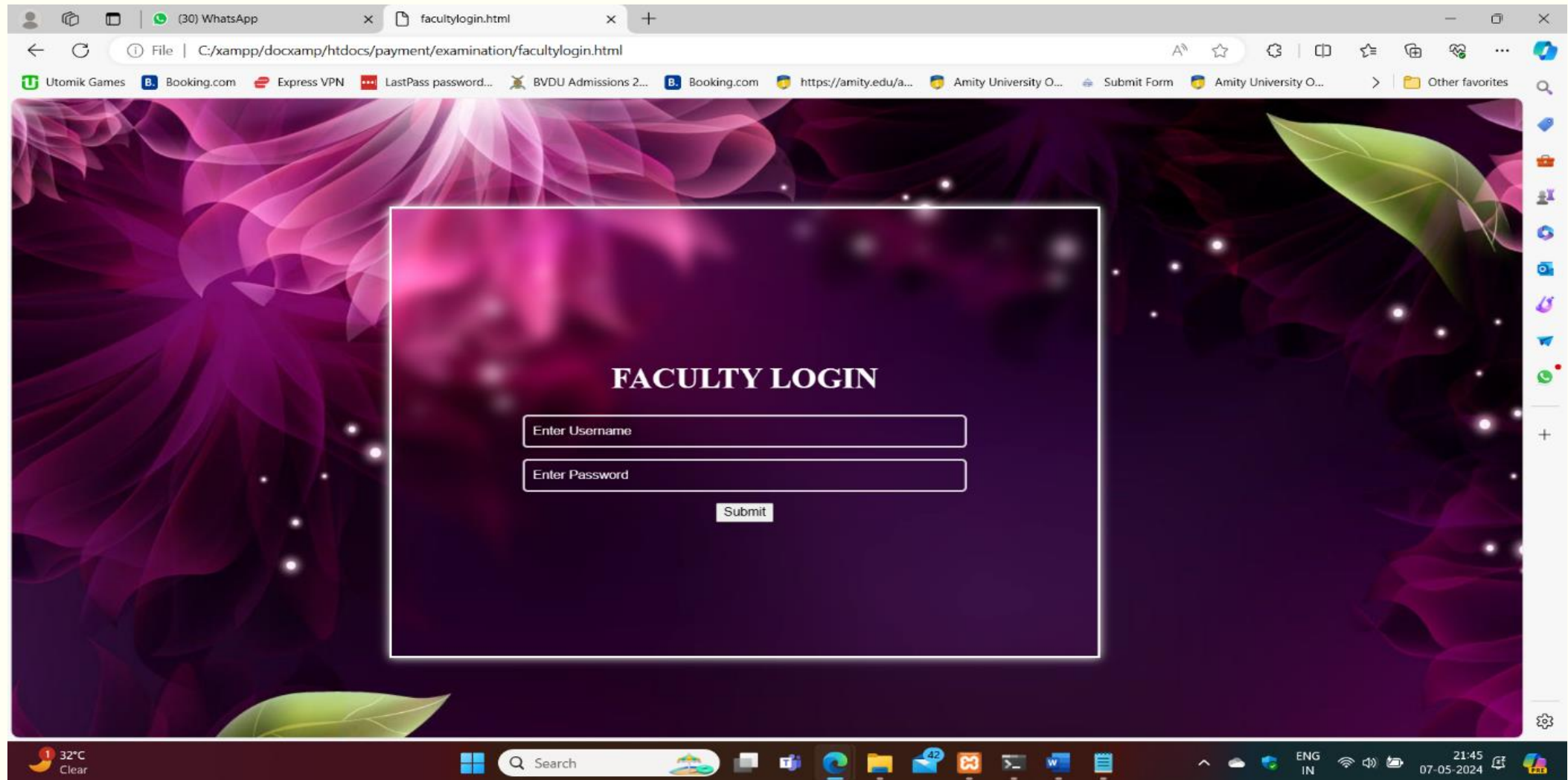
dsa exam

Message:

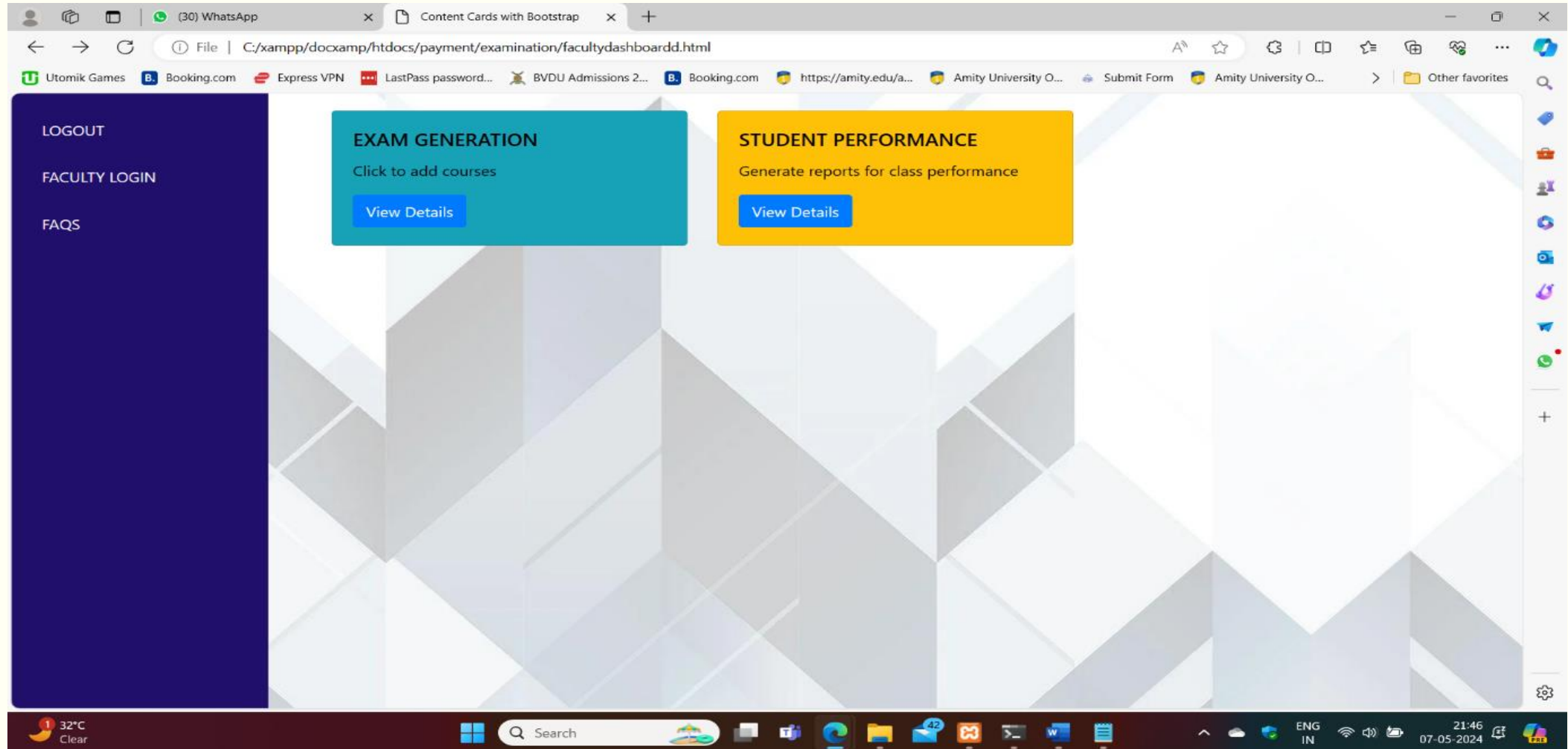
dsa exam is on friday 11 march 2024

Send Email

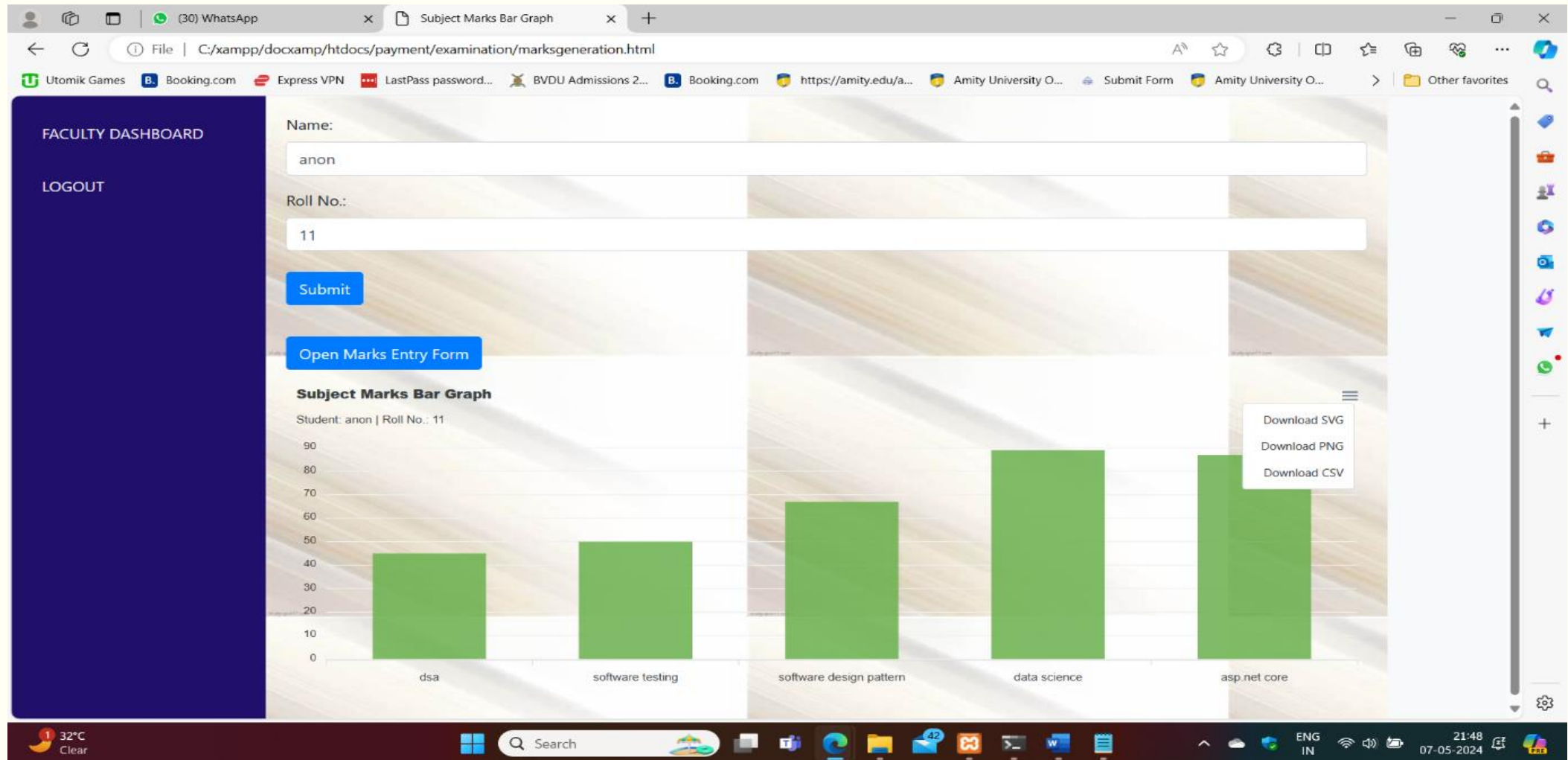
FACUTY LOGIN



FACULTY DASHBOARD



EXAM REPORT GENERATION



EXAM CREATION

The screenshot shows a web browser window with the address bar displaying `C:/xampp/docxamp/htdocs/payment/examination/manageexam.html`. The browser's address bar and tabs are visible at the top. The page has a dark blue sidebar on the left with the text "HOME" and "FACULTY". The main content area is titled "CREATE EXAMS" and contains a table with the following data:

Exam Title	Course	Description	Time Limit	Display Limit	Actions
DSA	MCA	TEST ON DSA	60 minutes	30 minutes	Manage Delete

The background of the main content area features a colorful, abstract, wavy pattern in shades of yellow, orange, and pink. The Windows taskbar is visible at the bottom, showing the search bar, task view button, and several application icons. The system tray on the right indicates the date and time as 07-05-2024, 21:46.



SYSTEM TESTING

SYSTEM TESTING

- System testing is a level of testing that validates the complete and fully integrated software product, and is typically performed using black box testing techniques.
- White box testing is a method of testing the internal workings or code of a software application, and is typically performed by developers or other technical team members.
- Black box testing is a method of testing the external workings of a software application from the user's perspective, and is typically performed by testers or quality assurance professionals.
- Gray box testing is a combination of black box and white box testing, and involves testing both the internal workings and external functionality of a software application.
- These testing techniques are important for ensuring the quality and reliability of software applications, and are often used in combination to provide a comprehensive testing strategy.





ADVANTAGES AND CONCLUSION

ADVANTAGES

Online exams can be taken from anywhere, at any time, providing flexibility for both students and educators.

Online examination systems can handle a large number of students simultaneously, making them ideal for universities and other large educational institutions.

Online exams can reduce the costs associated with traditional exams, such as printing and distribution of exam materials.

Online examination systems can provide enhanced security features, such as online monitoring of exam, to ensure the integrity of the exam.

Online exams can reduce the environmental impact of traditional exams by reducing the need for paper and transportation.

Online examination systems can be customized to meet the specific needs of different educational institutions and programs.

Online exams can be taken from the comfort of the student's home, reducing the need for travel and other logistical arrangements.



CONCLUSION



- In conclusion, an online examination system offers numerous benefits, including reduced administrative burden, ease of examination-related requirements, scalable worldwide reach, and various advantages for students.
- However, there are also barriers to consider, such as network concerns, security concerns, accessibility in remote geographical regions, and other barriers. To ensure the viability of an online examination system, various ways can be implemented, such as using technology to approach the system through enrollment, evaluation, expense payment, or monitoring and smoothing the process.
- Online audit, webcam, microphones, and controllers can help in conducting reviews. When implemented correctly, these solutions can provide significant improvements compared to conventional methods due to their automated mechanisms and robust processing. In the future, technology and ed-tech companies will ensure more development for a smooth operative experience in the online examination system.

REFERENCES

THE FOLLOWING WERE USED FOR REFERENES IN THE FOLLOWING PROJECT:

- 1.W3 SCHOOLS CSS TUTORIAL
- 2.W3 SCHOOLS JAVASCRIPT TUTORIAL
- 3.GETBOOTSTRAP
- 4.SQL: NIRALI





THANK YOU!!
