

# COURSE MANAGEMENT

## A PROJECT REPORT

*Submitted By*

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**JHANVI PADHIYAR - 225160694016**

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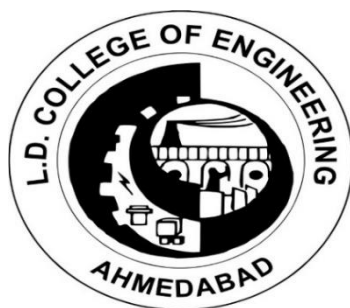
*In partial fulfilment for the award of the degree of*

**Master Of Computer Application**

**In**

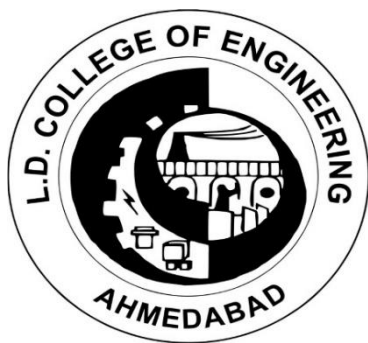
**Information Technology**

**L.D. Engineering College, Ahmedabad**



**Gujarat Technological University, Ahmedabad**

**[December,2023]**



**L.D. Engineering College, Ahmedabad**

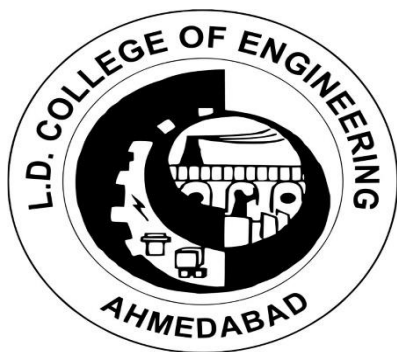
## **CERIFICATE**

This is Certify that the project submitted along with the project entitled COURSE MANAGEMEMNT has been carried out by **NISHIT PATEL** under my guidance in partial fulfilment for the degree of Master of Computer Application, Information Technology, 3<sup>rd</sup> Semester of Gujarat Technological University, Ahmedabad during academic year 2023-24

**Signature Of Student :** \_\_\_\_\_

**Signature Of Guide :** \_\_\_\_\_

**Prof. P.R.PATEL**



**L.D. Engineering College, Ahmedabad**

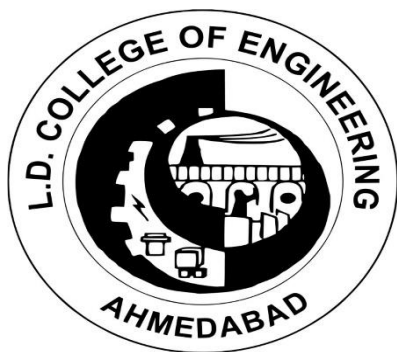
## **CERIFICATE**

This is Certify that the project submitted along with the project entitled COURSE MANAGEMEMNT has been carried out by **JHANVI PADHIYAR** under my guidance in partial fulfilment for the degree of Master of Computer Application ,Information Technology, 3<sup>rd</sup> Semester of Gujarat Technological University, Ahmedabad during academic year 2023-24.

**Signature Of Student :** \_\_\_\_\_

**Signature Of Guide :** \_\_\_\_\_

**Prof. P.R.PATEL**



**L.D. Engineering College, Ahmedabad**

## **CERIFICATE**

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**Signature Of Student :** \_\_\_\_\_

**Signature Of Guide :** \_\_\_\_\_

**Prof. P.R.PATEL**

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## **1. Introduction**

### **1.1 Existing System**

The current education system predominantly relies on traditional classroom-based learning and, to some extent, Learning Management Systems (LMS). These systems often lack the flexibility and interactivity needed to cater to the evolving demands of modern learners and instructors.

The traditional systems face challenges in terms of scalability, personalization, and accessibility, especially for those who prefer remote and self-paced learning.

### **1.2 Need For New System**

The need for a new Course Management System (CMS) arises from the changing landscape of education.

There is a growing demand for online courses that offer flexibility, accessibility, and a diverse range of subjects.

The new system aims to bridge the gap between traditional and online learning, providing an innovative platform for both educators and learners.

### **1.3 Objective of the New System**

These core objectives were created to ensure that each project initiative was in line with the needs of the Of Course! software and the educators that use it.

- Usability – the entire installation system should be easy to use for educators of intermediate computer literacy. All parts of the system must provide proper feedback and information as to the progress of the installation.
- Scalability – the system should be built to support various web scripting languages. The installer should be flexible to allow the addition of new features and configurable modules. The system should not depend on file layout or the existence of specific files.
- Compatibility – the installer should run successfully for a myriad of hosts, whether dedicated or shared.

## **1.4 Problem Definition**

The current education systems face challenges in adapting to the changing needs of learners.

The lack of interactive features, personalization, and accessibility hampers the effectiveness of education delivery.

The new CMS seeks to address these issues by incorporating modern technologies and pedagogical approaches.

## **1.5 Core Components:**

### **[A] User Authentication**

Secure user registration and login processes.

Role-based access control for administrators, instructors, and learners.

### **[B] Course Creation and Management**

Intuitive tools for instructors to create, edit, and organize course content.

Options for multimedia content, quizzes, and assignments.

### **[C] User Profiles**

Comprehensive user profiles with personal and academic information.

Progress tracking and course history for learners.

### **[D] Content Delivery System**

Reliable and fast content delivery, supporting various multimedia formats.

Streaming capabilities for video lectures and interactive elements.

### **[E] Payment Gateway Integration**

Secure payment processing for course enrollment.

Options for discounts, subscription models, and payment plans.

## 1.6 Project Profile

The CMS is a web-based application built using modern technologies such as HTML, CSS, BOOTSTRAP for the frontend, Django for the backend, and MySQL as the database.

Django was originally developed for the news-oriented site of the world company in Lawrence, Kansas.

It simplifies the development process of complex, data-base driven web applications like a news-oriented site.

Its well-designed framework includes three major parts: model, view and template.

The system is designed to be scalable, ensuring a smooth experience for users even as the number of courses and users grows.

## 1.7 Assumption & Constraints :

### Assumptions

Users have a stable internet connection.

Users possess basic computer literacy.

### Constraints

The project operates within a limited budget and timeframe.

## 1.8 Advantages & Limitations of the Proposed System

### Advantages

Flexibility in course delivery, allowing learners to study at their own pace.

Increased accessibility for learners worldwide, breaking geographical barriers.

Enhanced interaction between instructors and learners through discussion forums and live sessions.

### Limitations

Dependency on internet connectivity for accessing course content.

Initial setup costs for infrastructure may pose a challenge for smaller institutions.



## **2. Requirement Determination & Analysis**

### **2.1 Requirement Determination**

#### **Software and Hardware Requirement**

Software Each and every application needs a software in which it has to be executed and a hardware the application is going to perform its function.

Some applications require specific software and hardware for operation.

Applications in Visual basic is supported by Windows, as no one can easily access information and the code remains safe.

So, hardware and software used in creation of this application are mentioned below.

#### **Hardware:**

Hardware is a term which refers to all the physical parts that make up a computer.

Various devices which are essential to form a hardware are called components.

Following are the hardware specifications which were required to develop this project:

Components include: Computer, mouse, 2 gm of RAM for smooth functioning of application. Pendrive of 100 GB or more.

Internet connection and server connectivity.

#### **Software:**

Software can be termed as the group of instruction or command used by the computer to accomplish the given task.

It can be said as a set of instructions or programs instructing a computer to do specific task.

Software, in general term is used to describe the computer programs.

Following are the software specifications that is required to develop this project is as follows:

Operating System: Microsoft Windows 10 or above versions.

Language Used (Front End): Visual Studio Code [Index.html]

Database Used (Back End): mysql

## 2.2 Targeted Users

**Students:** Individuals seeking to enhance their knowledge, learn new skills, or obtain certifications in various subjects or disciplines.

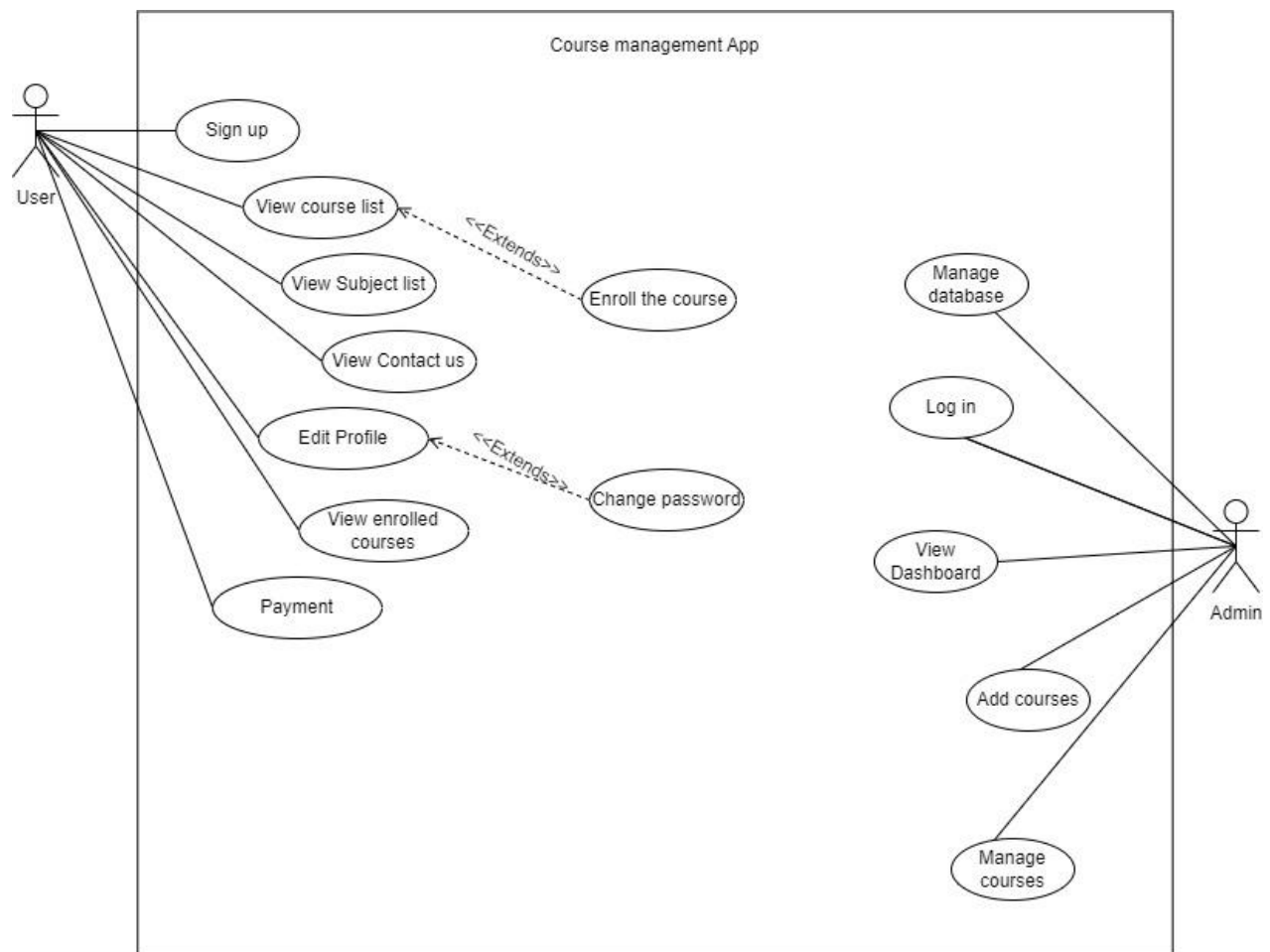
**Professionals:** People looking to upskill, advance their careers, or stay updated with industry trends and advancements.

**Educators/Trainers:** Instructors, teachers, or trainers interested in creating and delivering online courses or materials for their students or audience.

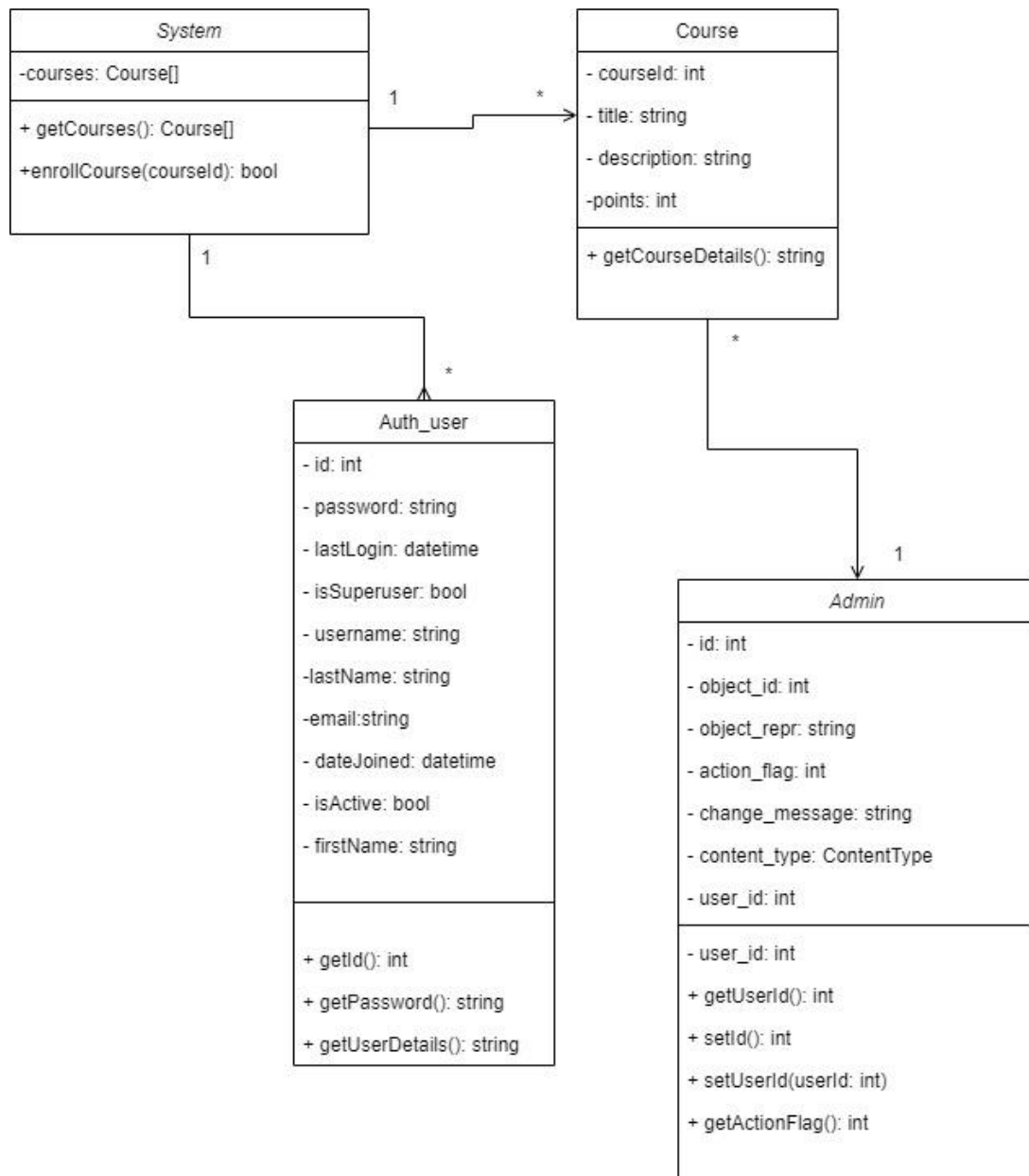
**Corporates/Companies:** Businesses aiming to provide training and development opportunities for their employees to improve skills or gain specialized knowledge relevant to their industry.

### 3. System Design

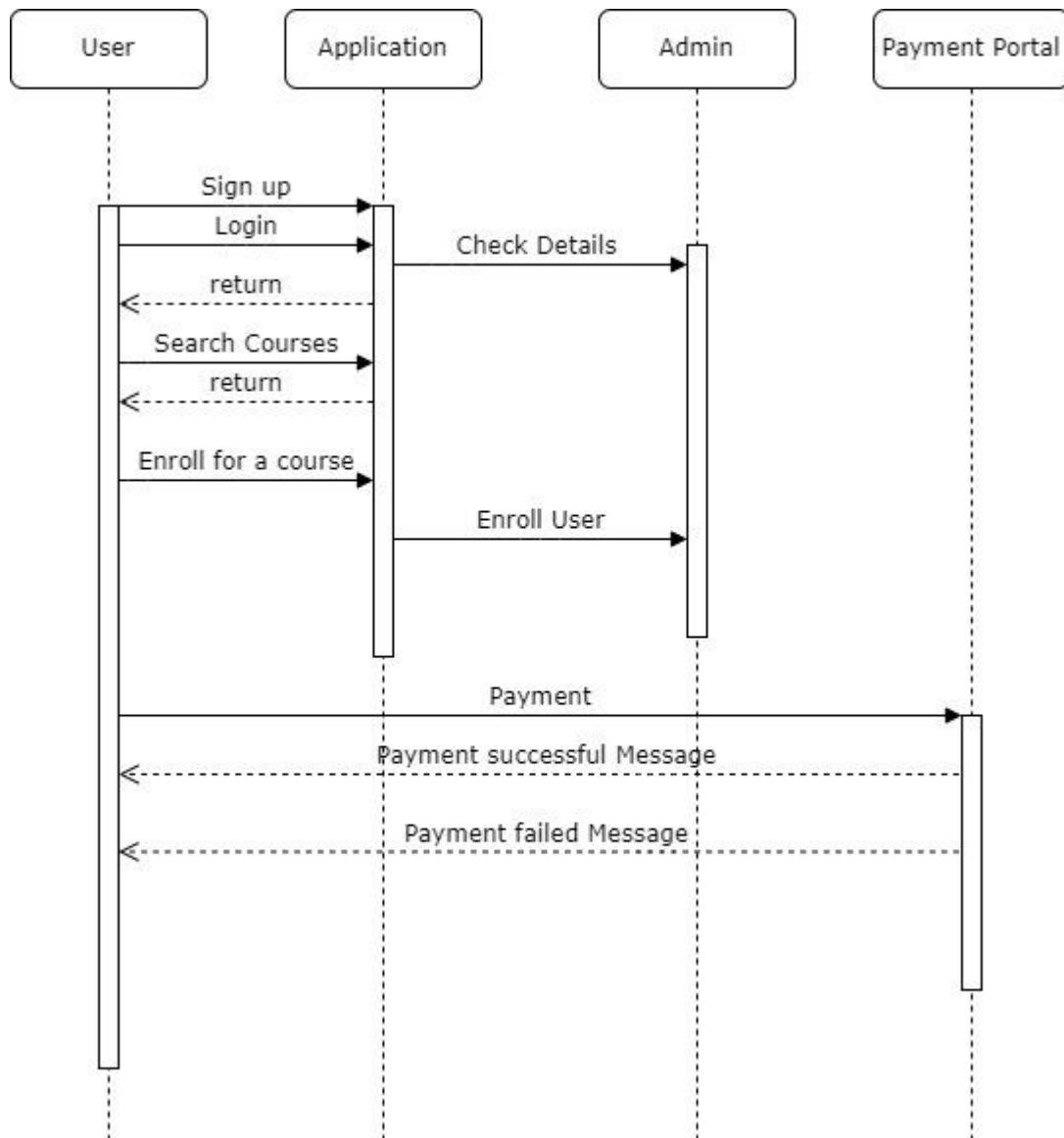
#### 3.1 Use Case Diagram



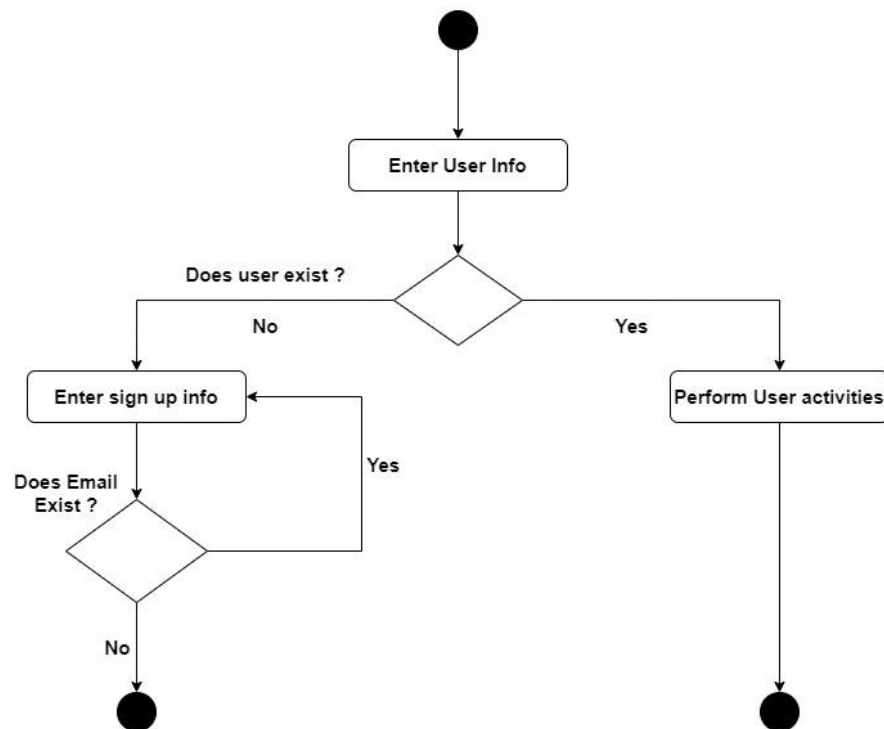
### 3.2 Class Case Diagram

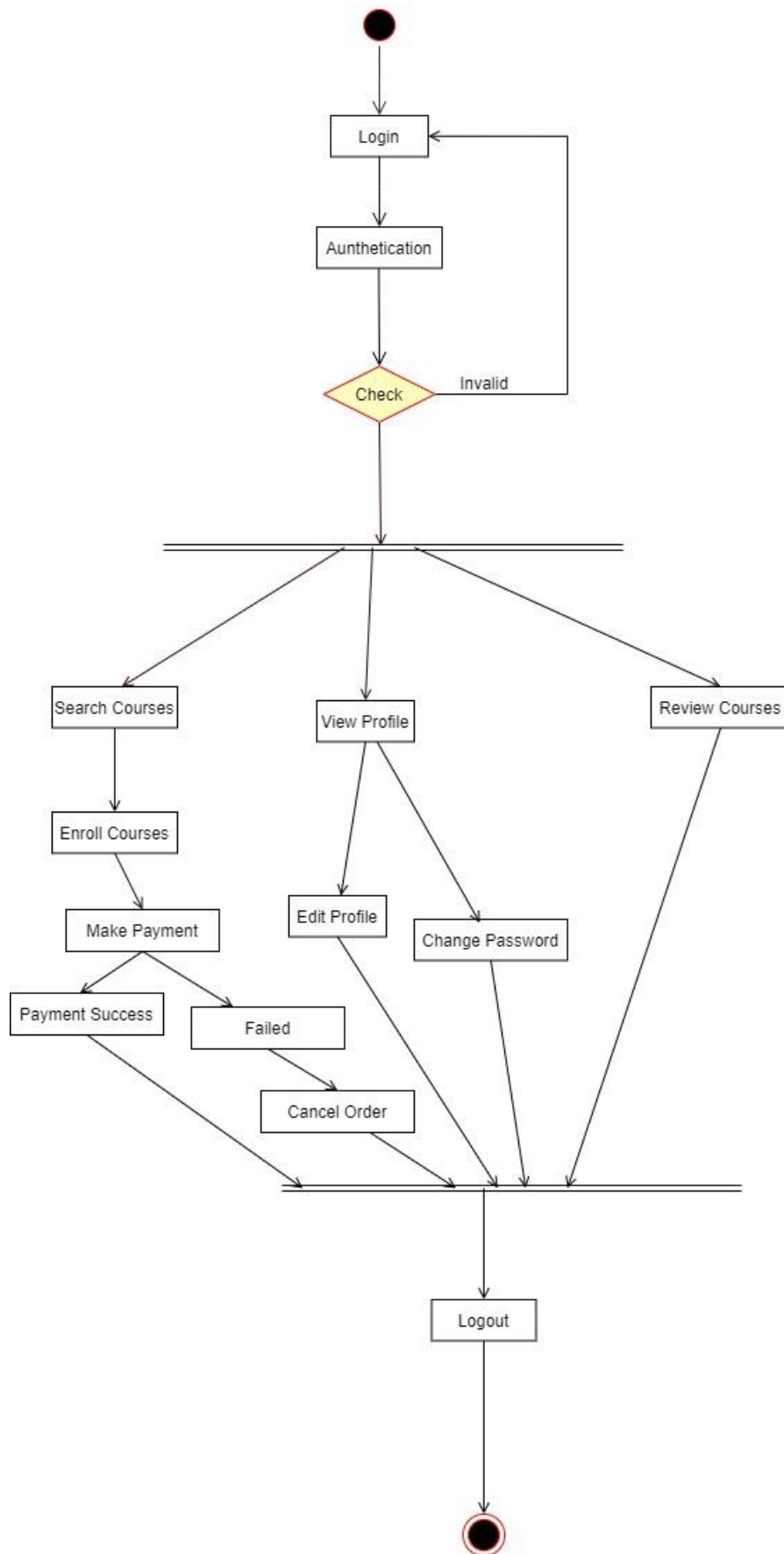


### 3.3 Interaction Diagram



### 3.4 Activity Diagram





### 3.5 Data Dictionary

auth_group_permission
Id
Group_id
Permission_id

auth_permission
Id
Content_type
Codename
name

auth_user_group
Id
user_id
group_id

Django_migrations
Id
App
Name
Applied

Django_admin_log
Id
Object_id
Object_repr
Action_flag
Change_message
Content_type
User_id
Action_time

App_requirement
Id
points
Course_id

App_what_you_learn
Id
points
Course_id

app_categories
Id
Icon
name

auth_user_user_permission
Id
user_id
group_id

auth_author
Id
Author_profile
Name
About_author



Auth_group
Id
name

App_level
Id
name

App_lesson
Id
Name
Course_id

Django_content_type
Id
App_label
model

Auth_user
Id
Password
Last_login
Is_superuser
Username
Last_name
Email
Is_Staff
Is_active
Date_joined
First_name

App_course
Id
Featured_Image
Featured_Video
Title
Created_At
Description
Price
Discount
Slung
Status
Author_id
Category_id
Level_id

App_video
Id
Serial_number
Thumbnail
Title
Youtube_id
Time_duration
preview
Course_id
Lesson_id

## **4. Development**

### **4.1 Coding Standards**

In the development phase, the Django backend was meticulously crafted, following the Model-View-Controller (MVC) architecture to ensure a scalable and maintainable codebase.

Leveraging Django REST Framework, robust API endpoints were created for seamless communication between the frontend and backend.

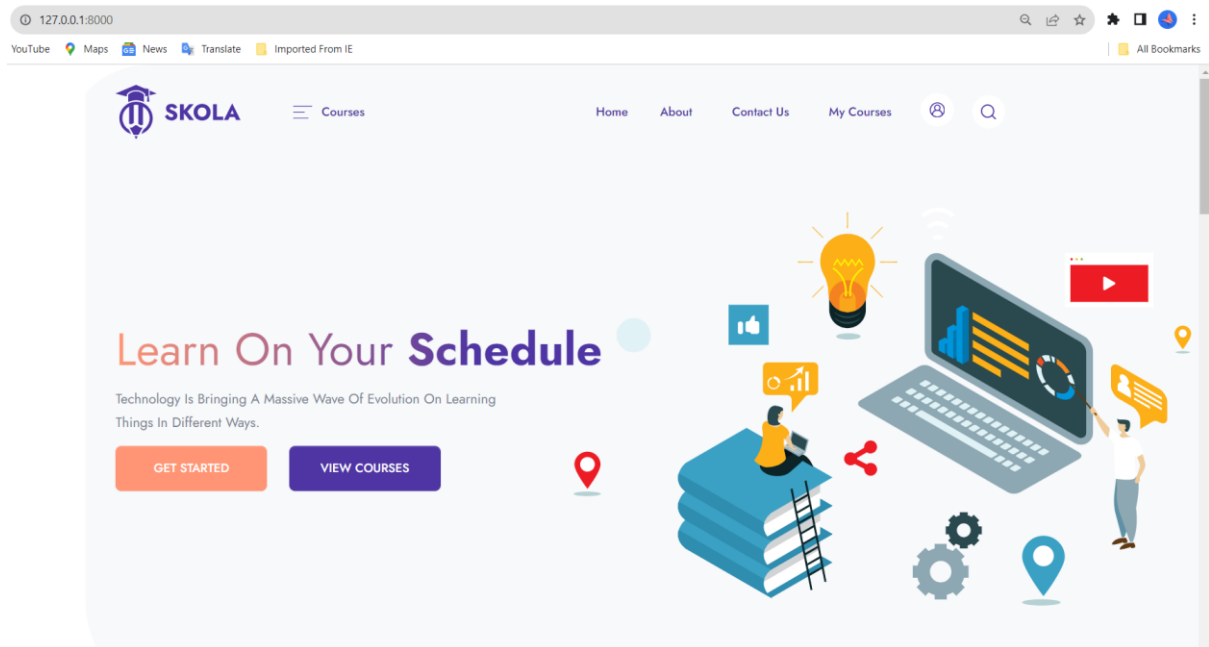
Third-party libraries were integrated for secure user authentication and seamless payment processing.

On the frontend, Bootstrap was instrumental in constructing a visually appealing and responsive user interface.

Custom styles were applied to achieve a cohesive and modern design, while JavaScript was employed for dynamic interactions, resulting in a user-friendly and engaging Course Management System.

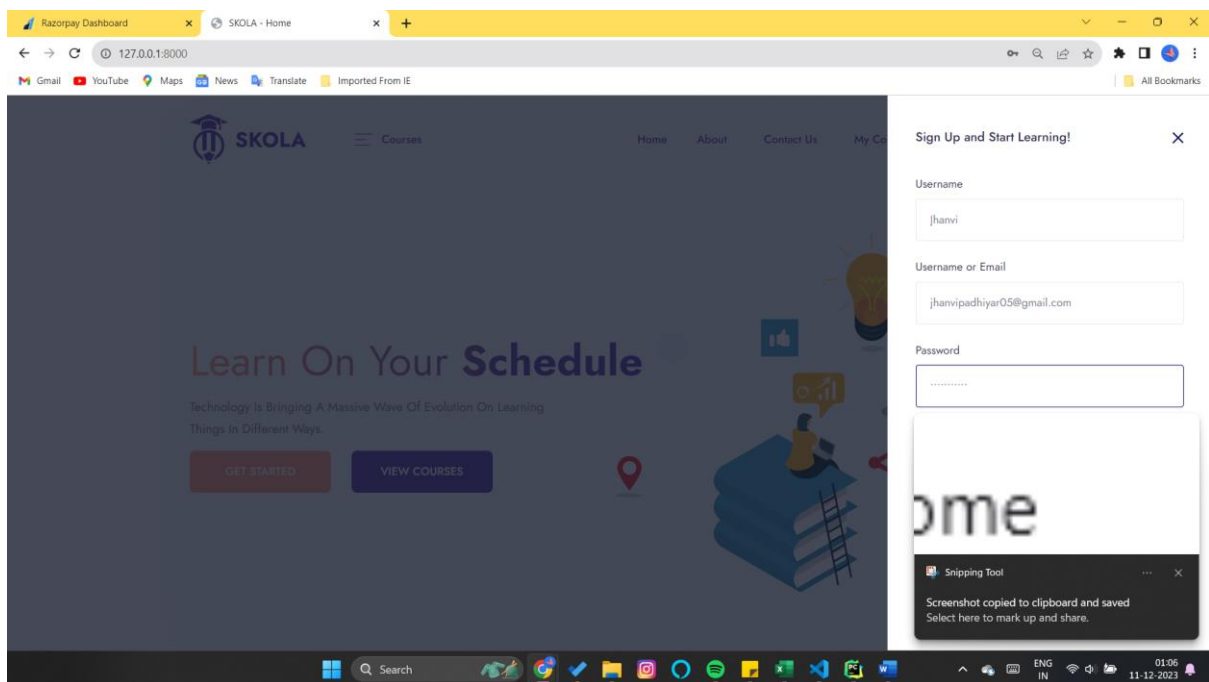
## 4.2 Screen Shots

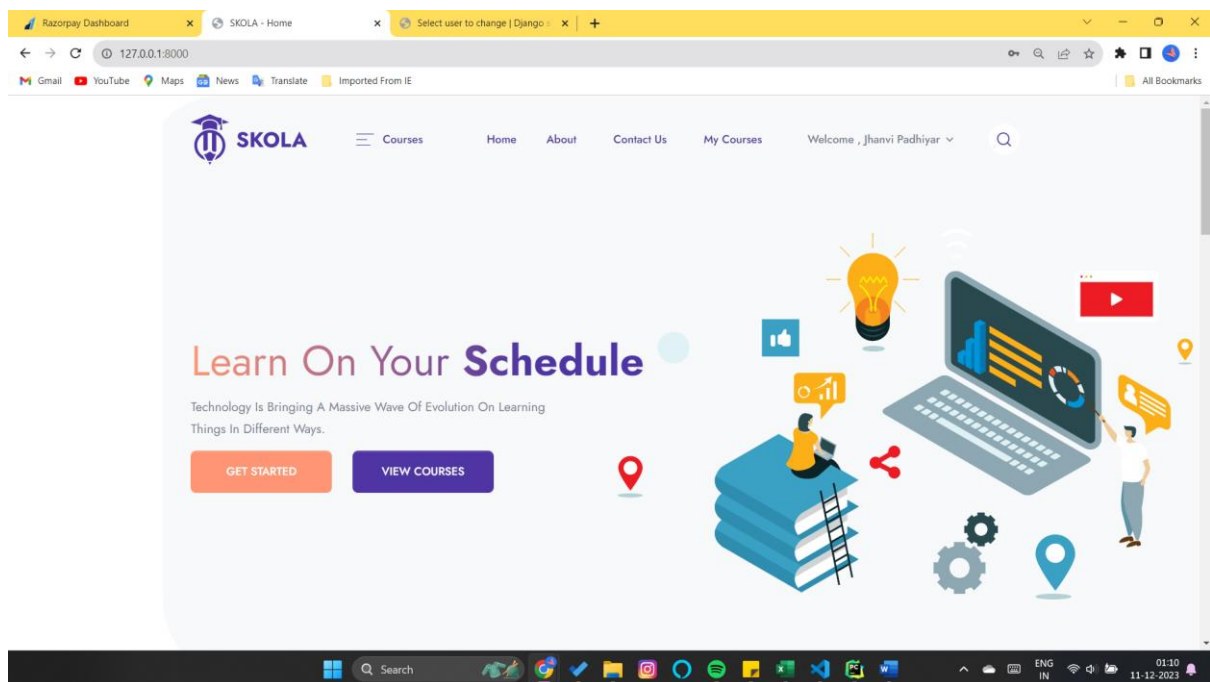
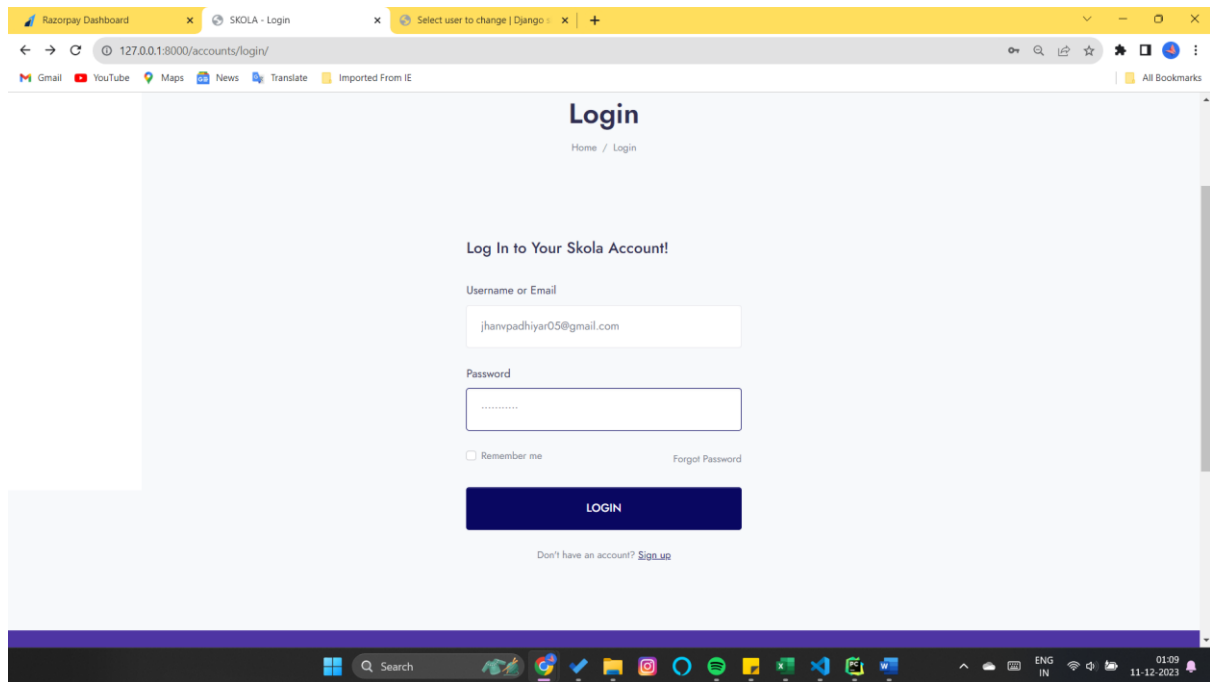
### Home Page:



### User:

### Registration/Login:





## View Courses:

Category

- ☐ python (1)
- ☐ PHP (1)
- ☐ JAVA (1)
- ☐ React js (1)
- ☐ Angular (0)

Price

- ☐ All (4)
- ☐ Free (1)
- ☐ Paid (3)

Level

- ☐ Beginner (2)
- ☐ Intermediate (1)
- ☐ Advanced (1)

python

Online Video Course Website Like Udemey

★★★★☆ 5.45 (5.8k+ reviews)

5 lessons 8h 12m ₹299

₹ 269

PHP

Student Management System Using Python

★★★★☆ 5.45 (5.8k+ reviews)

5 lessons 8h 12m ₹199

₹ 173

JAVA

Hospital Management System Using Python Django

★★★★☆ 5.45 (5.8k+ reviews)

5 lessons 8h 12m ₹399

₹ 339

React js

Multi Vendor Ecommerce Website

★★★★☆ 5.45 (5.8k+ reviews)

5 lessons 8h 12m Free

₹ 269

Razorpay Dashboard x SKOLA - Home x Select user to change | Django x +

127.0.0.1:8000

Gmail YouTube Maps News Translate Imported From IE All Bookmarks

### Featured Courses

Discover Your Perfect Program In Our Courses.

All Categories python PHP JAVA React js Angular

React js

Multi Vendor Ecommerce Website

★★★★☆ 5.45 (5.8k+ reviews)

5 lessons 8h 12m Free

JAVA

Hospital Management System Using Python Django

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PHP

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python

Online Video Course Website Like Udemey

★★★★☆ 5.45 (5.8k+ reviews)

5 lessons 8h 12m ₹299

₹ 269

Search

ENG IN 01:13 11-12-2023

The screenshot shows the SKOLA website interface. The top navigation bar includes links for Courses, Home, About, Contact Us, My Courses, and a welcome message for Jhanvi Padhiyar. The main content area features the course title "Multi Vendor Ecommerce Website" with a description: "A multi-vendor e-commerce platform is an online marketplace where multiple independent sellers or vendors can list and sell their products or services to a diverse customer base. This type of e-commerce model allows for a wide variety of products to be offered in one place, providing customers with a convenient and comprehensive shopping experience. Vendors have their own storefronts within the platform, and". The course is created by Jhanvi, categorized under React.js, and has a 9.45 rating from 9.8k+ reviews. The "Overview" tab is selected, showing the course description. A sidebar on the right displays the price as "Free" (91% off), a "2 days left at this price!" countdown, an "ENROLL" button, and course details: Duration (98 min), Lectures (8), and Enrolled (0).


This screenshot shows the same course page but with the "Reviews" tab selected. The "Course Description" section is visible, followed by a "Read More" link. The "What you'll learn" section lists several bullet points: "Become a UI/UX designer.", "You will be able to start earning money skills.", "Build a UI project from beginning to end.", "Work with colors & fonts.", "You will create your own UI Kit.", "Build & test a complete mobile app.", "Learn to design mobile apps & websites.", "Design 3 different logos.", "Create low-fidelity wireframe.", and "Downloadable exercise files." The sidebar on the right remains the same, showing the "Free" price, "ENROLL" button, and course details.

The screenshot shows a web browser window with the URL `127.0.0.1:8000/courses/multi-vendor-e-commerce-website/#Curriculum`. The page has a yellow header with navigation tabs: Overview, Curriculum (active), Instructor, and Reviews. The Curriculum section is expanded, showing a list of video lessons under three categories: Introduction, Design Basics, and Figma Academy. Each lesson includes a red play button icon, a title, and a duration. The Windows taskbar at the bottom shows the time as 01:18 on 11-12-2023.

Category	Lesson Title	Duration
Introduction	How to Setup a Django Project in PyCharm	9 min
	How to set the Static and Templates folder settings in Django	3 min
Design Basics	How to Include Function in Django	14 min
	Template Inheritance in Python - Django	6 min
Figma Academy	The Dynamic Image Slider - Multivendor ecommerce project - Create a Slider Model	27 min

The screenshot shows the same web browser window with the URL `127.0.0.1:8000/courses/multi-vendor-e-commerce-website/#Instructor`. The navigation tabs are Overview, Curriculum, Instructor (active), and Reviews. The Instructor section displays a profile for Jhanvi, a Web Developer. It includes a profile picture, a bio, and statistics. Below the profile, there is a section for Student feedback with a sub-header and a list of reviews.

**About the instructor**

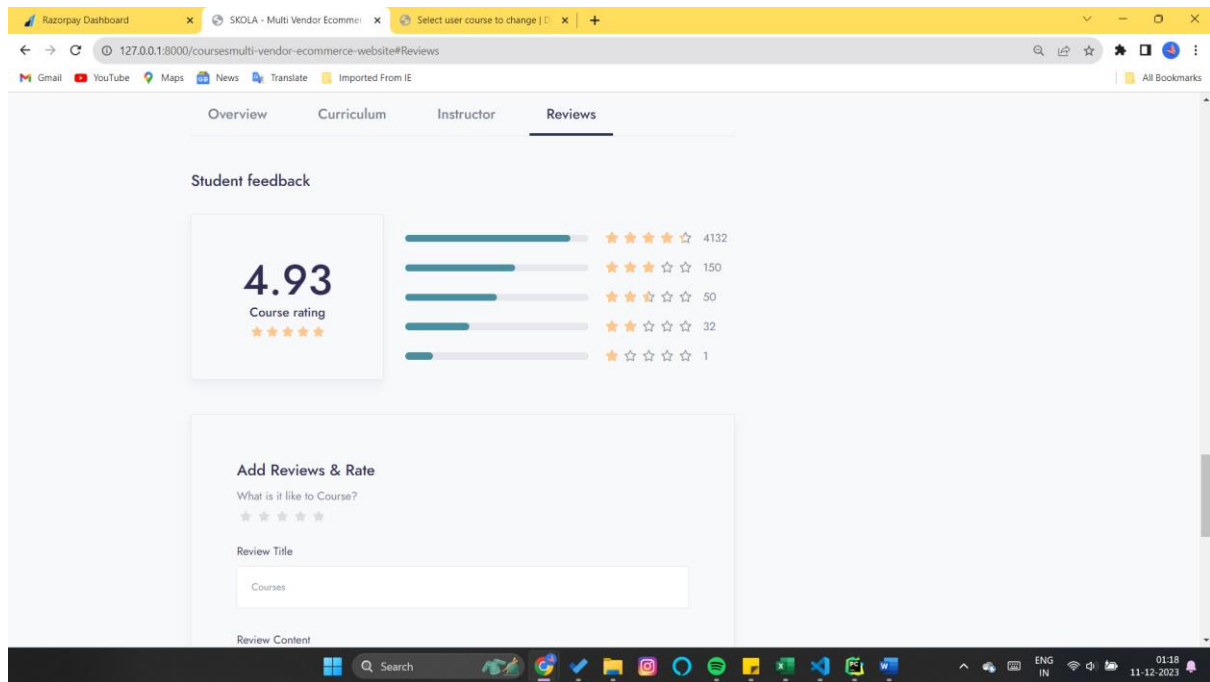
 **Jhanvi**  
Web Developer

☆ 4.87 Instructor rating    💬 1,533 reviews    👤 23,912 students    ▶ 29 courses

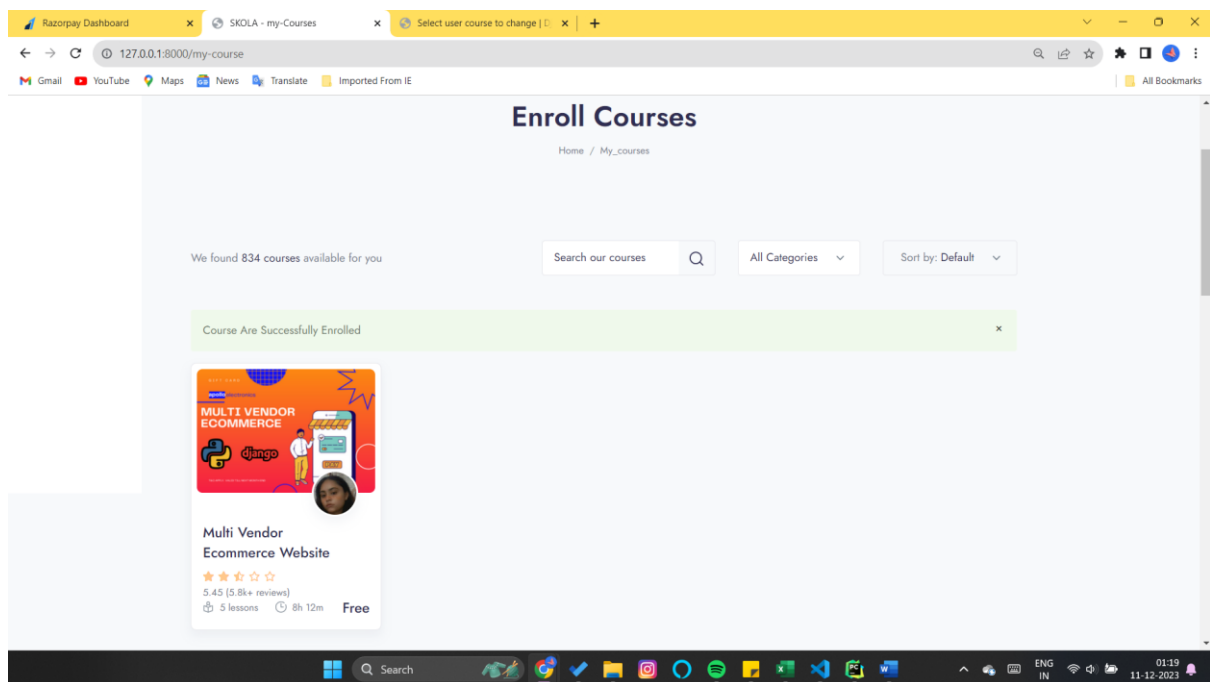
I am a web developer with having almost six years of experience in application development and also ten years of graphic design and User Interface design. My passion is helping people to learn new skills in a short-term course and achieve their goals. I've been designing for more than ten years and developing iOS apps for four years. It's my honor if I could help you learn to program in a simple word. I currently am teaching iOS 13, Swift 5, ARKit 3, Sketch 5, Illustrator, Photoshop, Cinema 4D, HTML, CSS, JavaScript, etc.

Overview    Curriculum    Instructor    Reviews

**Student feedback**



## Enroll Course:





Razorpay Dashboard x SKOLA - Checkout x Select course to change | Django x +

127.0.0.1:8000/checkout/multi-vendor-e-commerce-website

Gmail YouTube Maps News Translate Imported From IE All Bookmarks

First name \* jhanvi Last name \* Padhiyar

Country \* India

Street address \* Dev Ganesh

Apartment, suite, unit etc. (optional)

Town / City \* Ahmedabad County

Postcode \* 382481 Phone \*

Email address \* jhanvi123@gmail.com

Product	Total
Multi Vendor Ecommerce Website	₹310
Discount	15%
Total	₹263

PLACE ORDER

Razorpay Dashboard x SKOLA - Checkout x Select course to change | Django x +

127.0.0.1:8000/checkout/multi-vendor-e-commerce-website?action=create\_payment

Gmail YouTube Maps News Translate Imported From IE All Bookmarks

SKOLA Courses Welcome, Jhanvi Padhiyar

Test Mode

Skola Online course

Total Amount ₹ 263

Secured by Razorpay

Contact Details

Phone Number +91 8200241974

Email jhanvipadhiyar05@gmail.com

Proceed

PLACE ORDER

Billing details

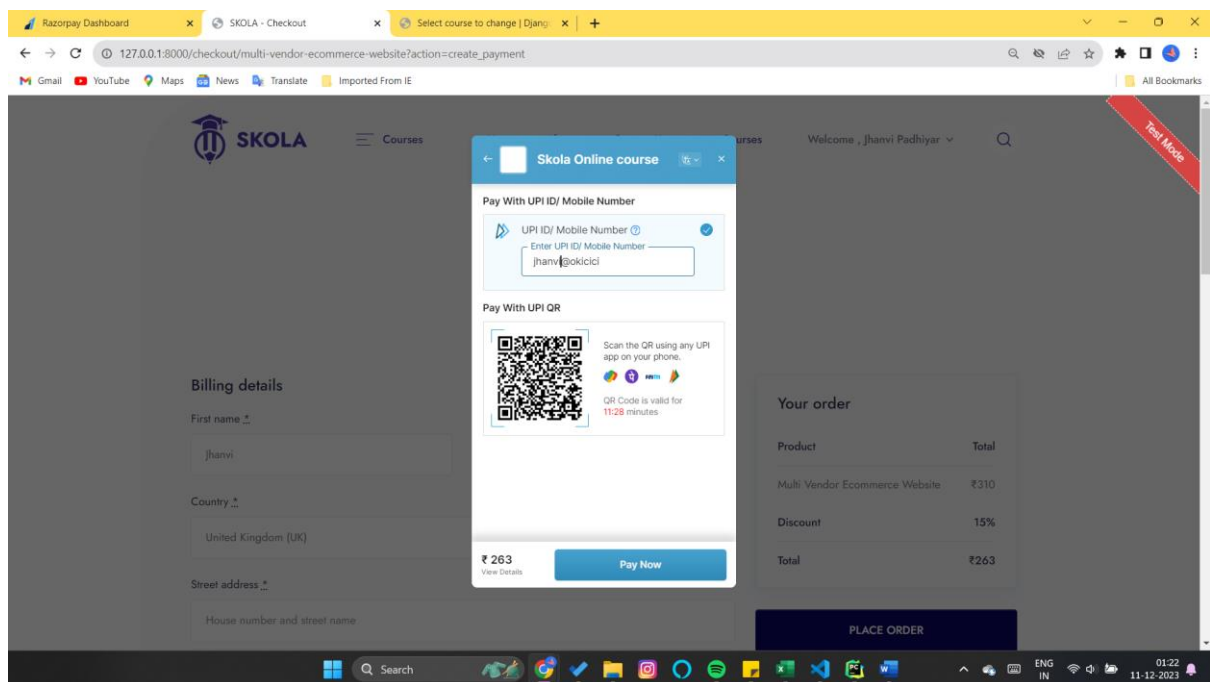
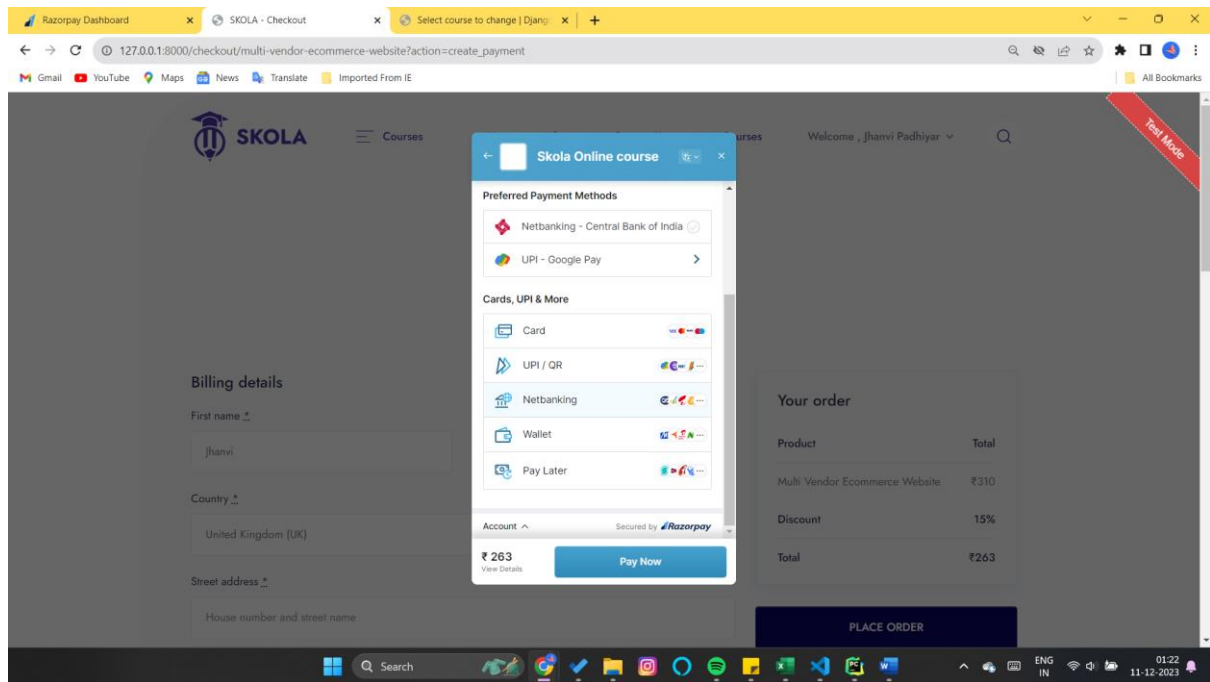
First name \* jhanvi

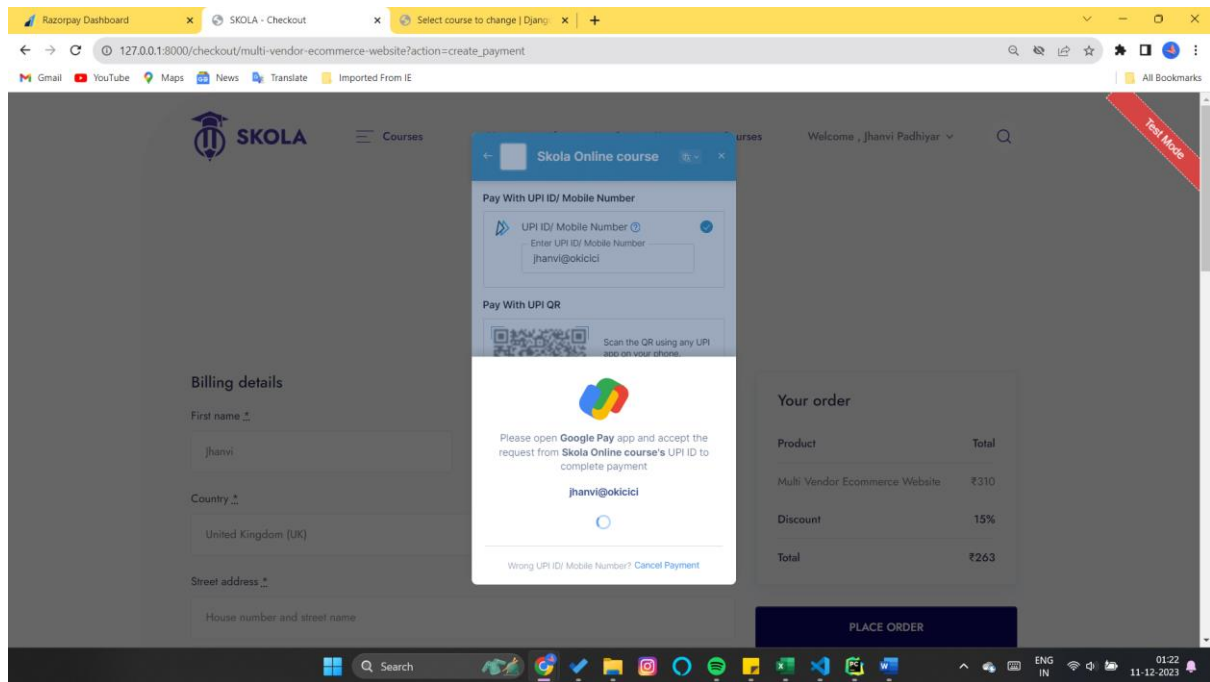
Country \* United Kingdom (UK)

Street address \* House number and street name

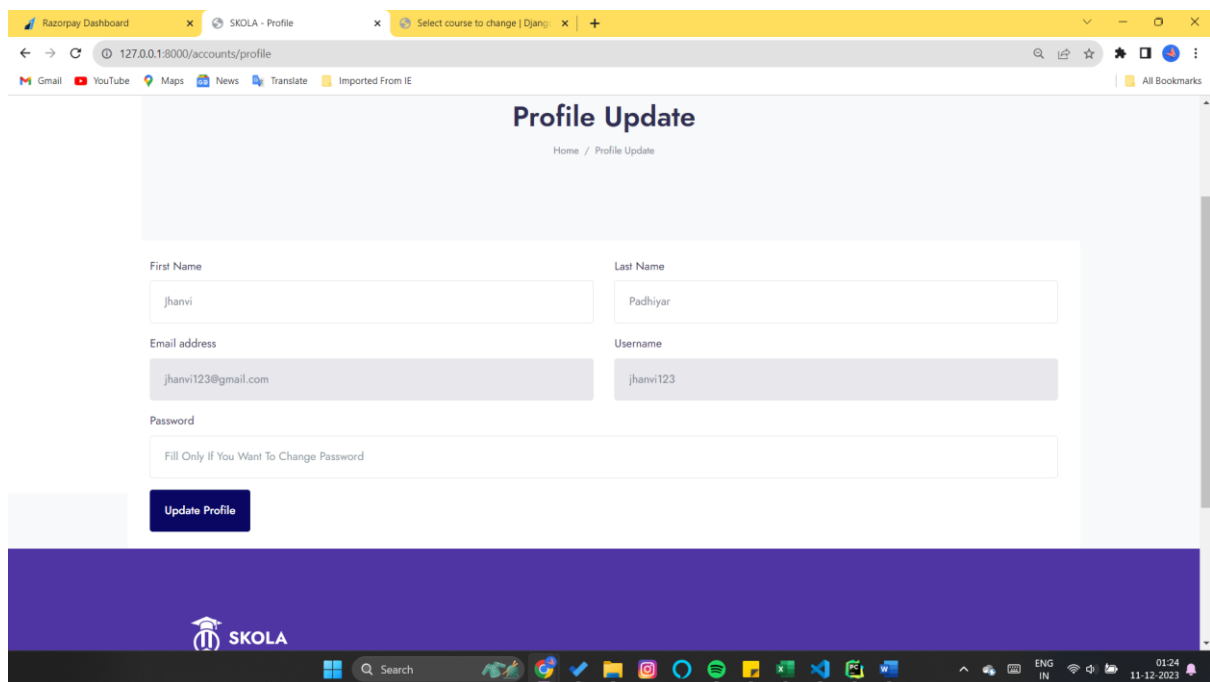
Your order

Product	Total
Multi Vendor Ecommerce Website	₹310
Discount	15%
Total	₹263

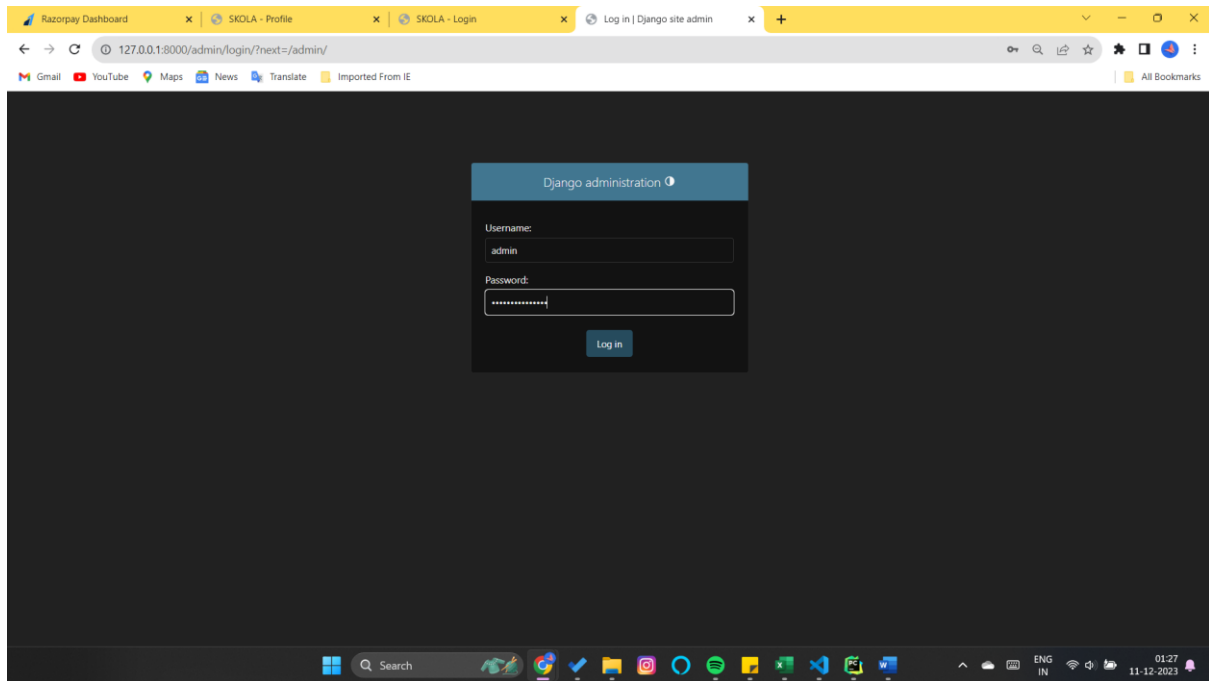




## Modify Details:



## Admin Side:



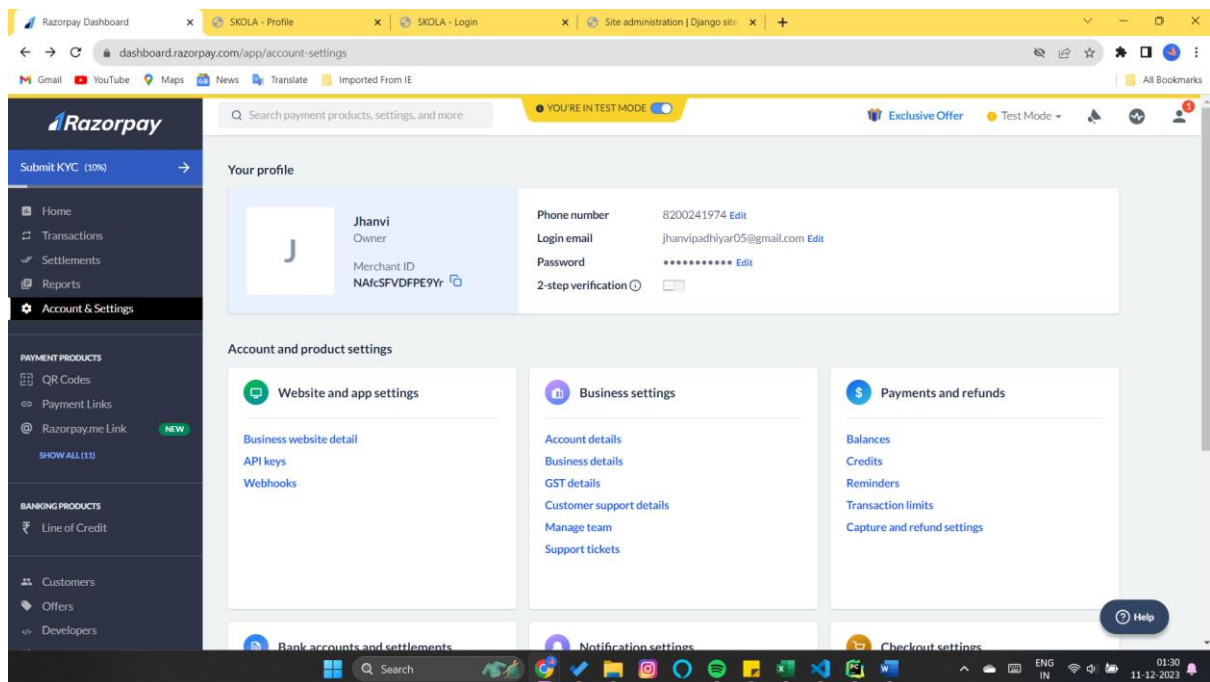
The screenshot shows a web browser window with the following elements:

- Browser Tabs:** Razorpay Dashboard, SKOLA - Profile, SKOLA - Login.
- Address Bar:** 127.0.0.1:8000/admin/
- Browser Extensions:** Gmail, YouTube, Maps, News, Translate, Imported From IE.
- Page Title:** Django administration
- Section Header:** Site administration
- APP Section:**

APP		
Authors	+ Add	Change
Categoriess	+ Add	Change
Courses	+ Add	Change
Languages	+ Add	Change
Lessons	+ Add	Change
Levels	+ Add	Change
Payments	+ Add	Change
Requirementss	+ Add	Change
User courses	+ Add	Change
What_you_learns	+ Add	Change
- AUTHENTICATION AND AUTHORIZATION Section:**

AUTHENTICATION AND AUTHORIZATION		
Groups	+ Add	Change
Users	+ Add	Change

## Payment Dashboard:



## **5. Proposed Enhancement**

Future enhancements may include:

Integration with additional frontend frameworks for enhanced UI customization.

Implementation of real-time collaboration features for instructors and learners.

## **6. Conclusion**

The CMS, developed with Django for the backend and Bootstrap for the frontend, represents a significant step towards modernizing course management.

The combination of a robust backend and a responsive frontend provides a scalable and user-friendly platform for educators and learners alike.

The system provides a scalable, user-friendly platform that caters to the diverse needs of both educators and learners.

Leveraging Django's powerful backend capabilities and Bootstrap's responsive frontend design, the project achieves its objectives of enhancing course management and modernizing the educational landscape.

The synergistic combination of these technologies ensures the CMS meets the demands of a dynamic and evolving online learning environment.



## **7. Bibliography**

1. Udemy : <https://www.udemy.com>
2. Django: <https://www.djangoproject.com/>
3. Bootstrap: <https://getbootstrap.com/docs/>
4. MySQL: <https://dev.mysql.com/doc/>