A PROJECT REPORT

On

TechTube - "An E-learning website"

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MAULANA ABUL KALAM AZAD UNIVERSITY OF TECHNOLOGY

06/24

CERTIFICATE

Certified that this project report on **TechTube - "An E-learning website"** is the bonafide work of **"Roumodip Das(10800220004),Abhishek Choudhary (10800220030),Sneha Sarkar (10800220057),Kunal Kesh (10800220025)"** who carried out the project work under my supervision.

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Asansol Engineering College   Information Technology

                                                     Asansol Engineering College

INFORMATION TECHNOLOGY

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<u>ACKNOWLEDGEMENT</u>

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PROJECT SYNOPSIS

ABSTRACT

In the fast-paced digital landscape, the demand for flexible and accessible education is more significant than ever. "TechTube" emerges as a dynamic e-learning platform designed to transform the traditional learning experience. This project addresses the evolving educational needs of the modern learner by providing a comprehensive and interactive online environment.

TechTube is a user-centric e-learning website that offers a diverse range of courses, spanning from technology and programming to business and creativity. The platform is equipped with cutting-edge features, including high-quality video lectures, user friendly environment and user can utilize the content in offline mode.

__INTRODUCTION__

This report illuminates the myriad advantages that this innovative learning platform brings to the forefront. From flexible accessibility and personalized learning paths to interactive content and global connectivity, explore how TechTube redefines the landscape of education for the better. This report embarks on an exploration of the manifold advantages inherent in this cutting-edge platform. One of the standout features of TechTube is its commitment to flexibility. Learners can access a wealth of educational content at their convenience, breaking free from traditional constraints of time and location. This flexibility not only accommodates diverse schedules but also fosters a learner-centric environment. Interactivity becomes a cornerstone of education with TechTube. Dynamic multimedia content, and collaborative tools such as students can ask doubts directly creates an immersive learning environment. This not only keeps learners actively engaged but also promotes a deeper understanding of the subject matter through hands-on experiences. Breaking down geographical barriers, the platform connects learners and educators from around the world, fostering a rich exchange of ideas and perspectives. This interconnectedness broadens the educational experience, offering a global perspective on various subjects. As we navigate through the depths of this report, we will uncover how TechTube's forward-thinking design and features contribute to an enriched and effective e-learning journey.

A Glimpse into TechTube:

- **Home Page**: Explore curated content, featured courses tailored to your interests.

- **About Page**: Discover the ethos and mission driving TechTube's commitment to reshaping online education.

- **Register/Login/Logout**: Seamlessly start your learning journey, ensuring your experience is secure and personalized.

- **View Profile**: Monitor your progress, achievements, and personalized settings effortlessly.

- **Update Profile**: Tailor your TechTube experience to reflect your unique learning preferences.

- **Course Page**: Immerse yourself in a diverse range of courses designed to empower and inspire learners.

- **Teacher Page**: Connect with experienced educators shaping the TechTube learning landscape.

- **Contact Us Page**: Access a direct line of communication for queries, support, and feedback

<u>METHODOLOGY</u>

Techtube's e-learning workflow begins with user registration and profile setup, followed by course selection. Users access structured learning modules with diverse content, including videos and interactive elements. Progress is tracked, and assessments provide feedback. User support ensures a smooth learning experience, creating a comprehensive and effective e-learning journey.

Techtube's e-learning platform likely follows a structured methodology to deliver content effectively. It typically involves:

Needs Analysis: Identifying the target audience and their learning needs.

Content Creation: Developing high-quality educational content, which may include video lectures.

Platform Design: Creating an intuitive and user-friendly interface for easy navigation and engagement.

Level-0 DFD
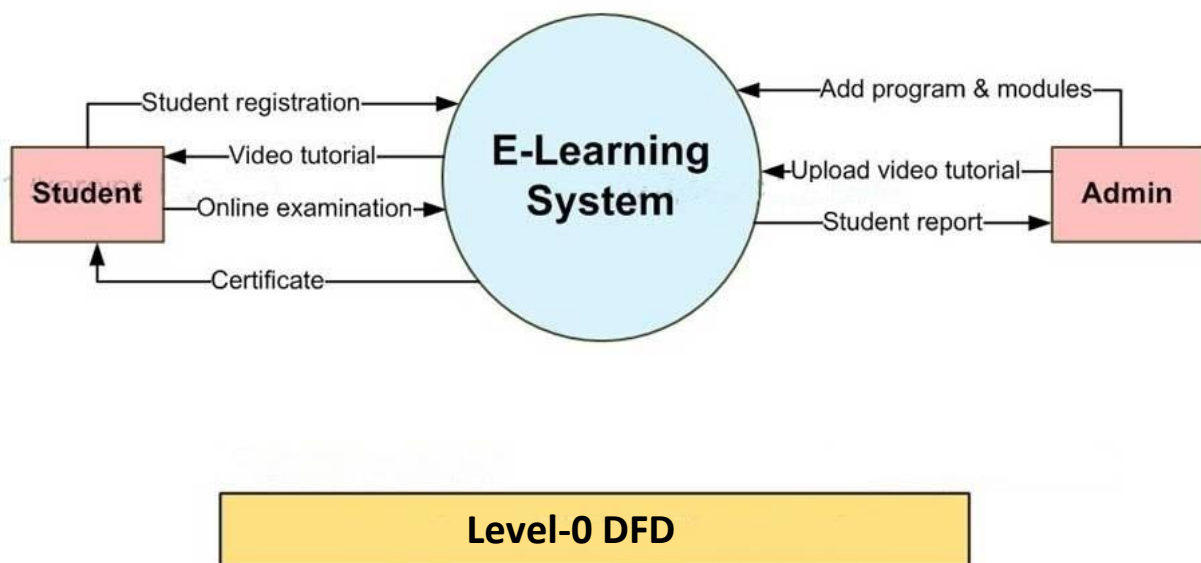
Fig: 1
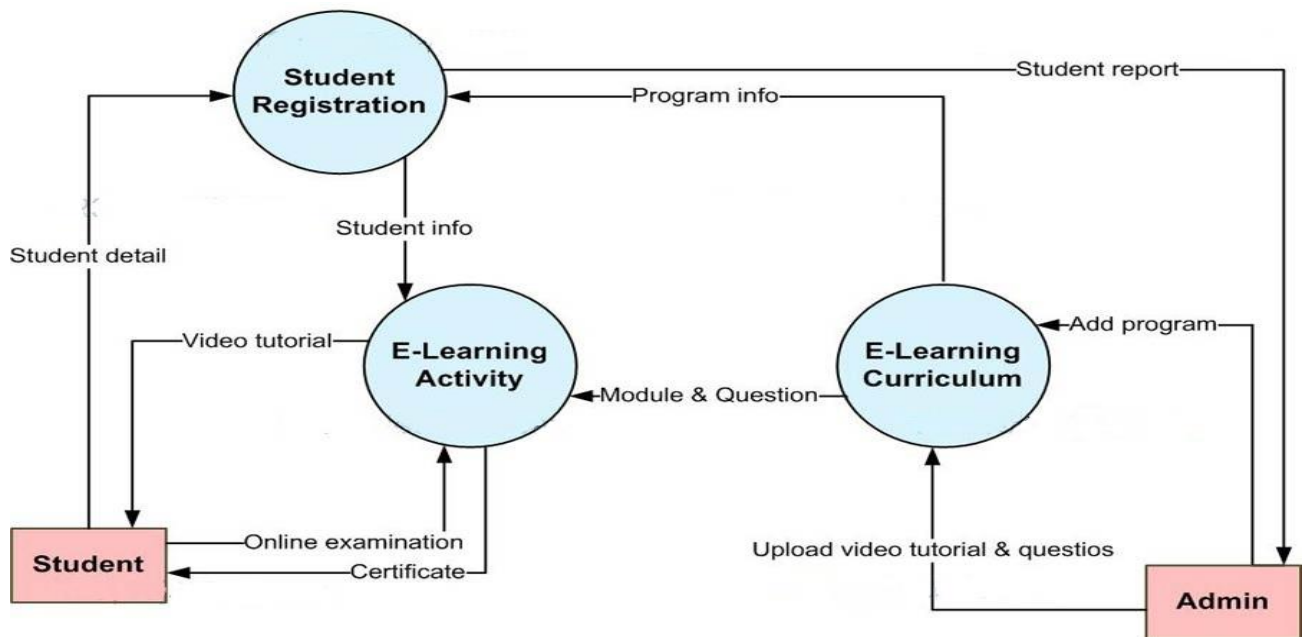
Level-1 DFD

Fig: 2

Level-2 DFD

Fig: 3

ix
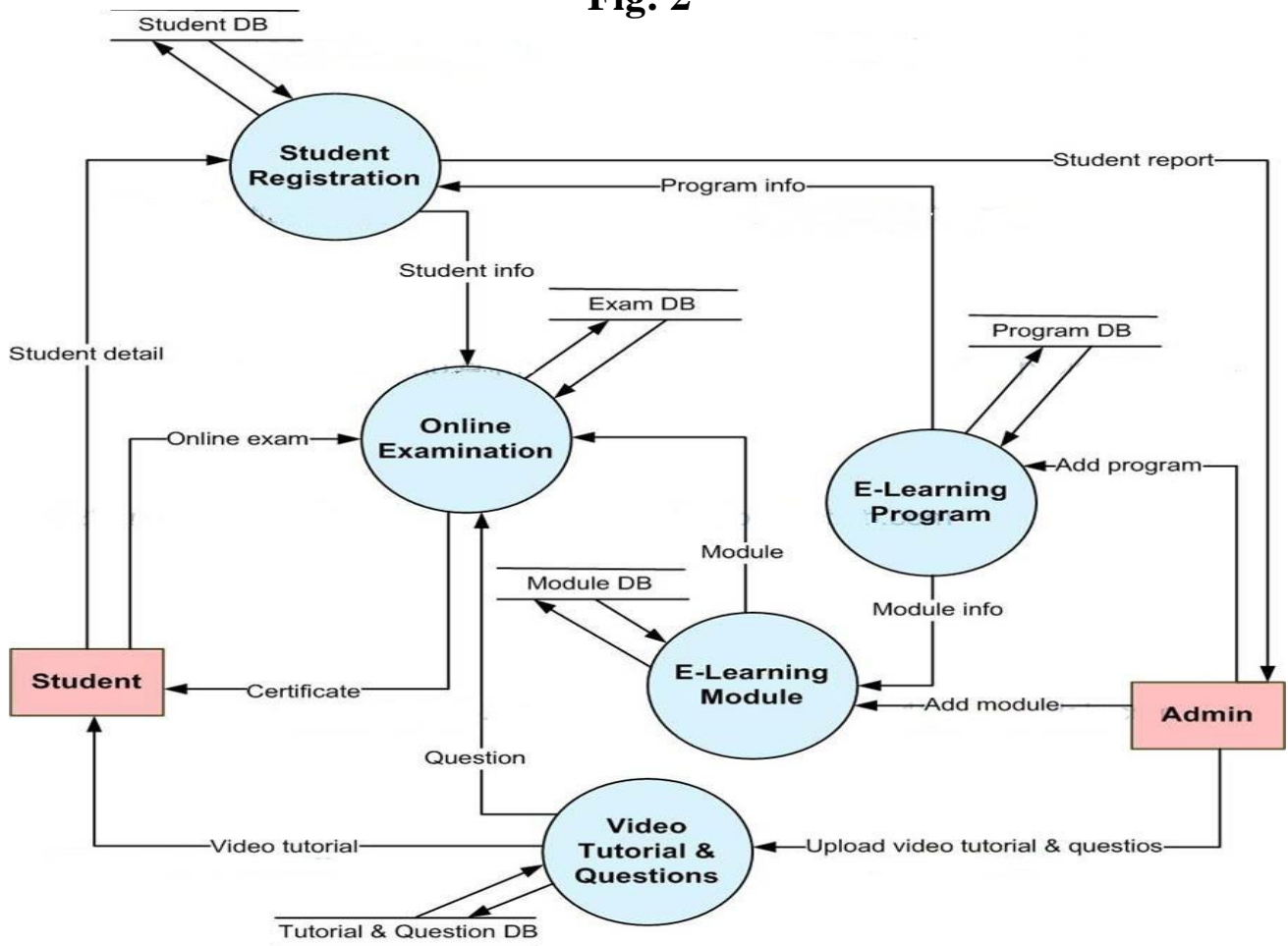
IMPLEMENTATION DETAILS

Hardware Requirements:

1. 4GB DDR4 RAM
2. 1TB Hard Drive
3. 8th Gen Intel Core i3-8145U 2.10GHz Processor

Software Requirements:

Windows	10
Frontend-Languages	HTML5, CSS3 and JS
Backend-Languages	PHP 8.2
Database	MySQL
Server	XAMPP Server 8.2
IDLE	Visual Studio Code 9.8.1
Browser	Google Chrome
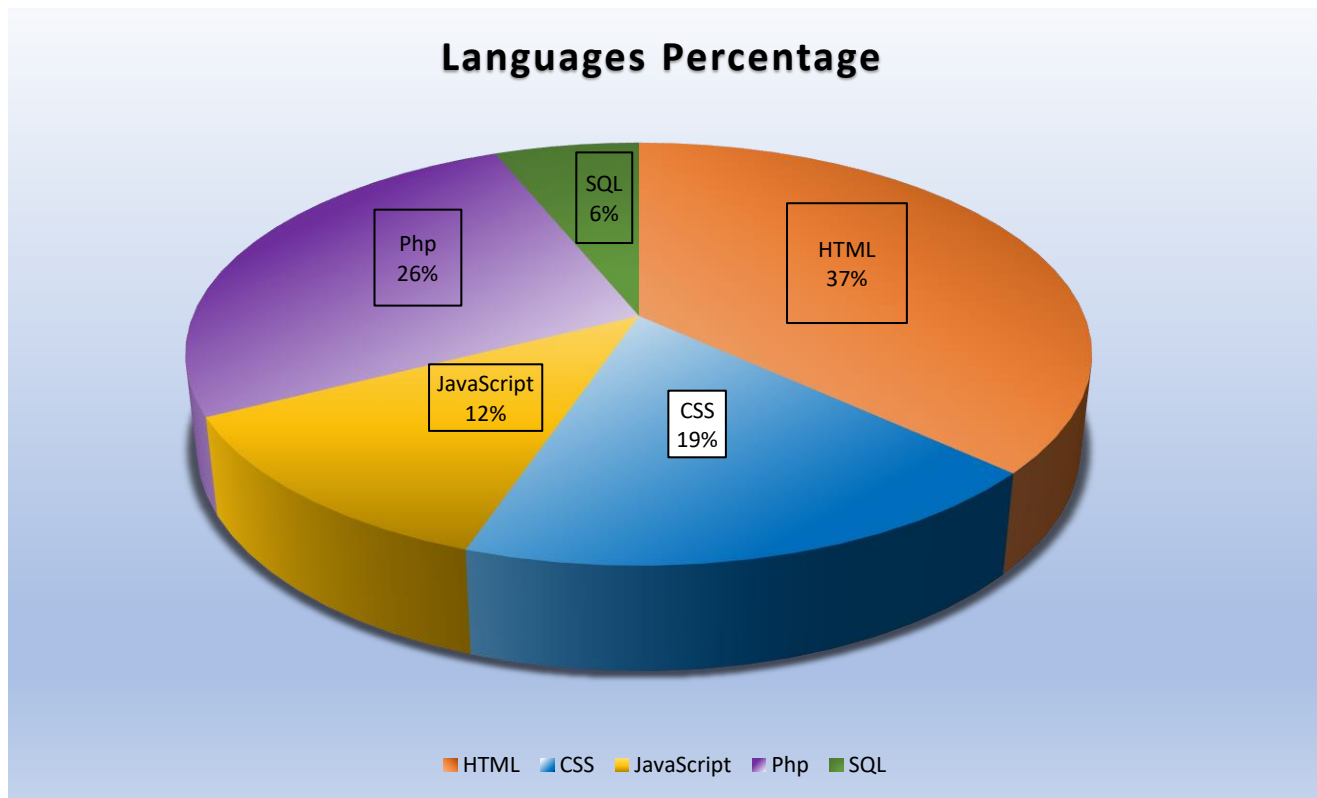
Fig: 4

USER INTERFACE

Students Portal:

Home Page

Search Bar

Nav Bar

Header Section

Redirects to the login page.

Categories Section

Redirects to the about page.

Courses Section

Redirects to the courses page.

Fig: 5

Footer Section

Login/Register
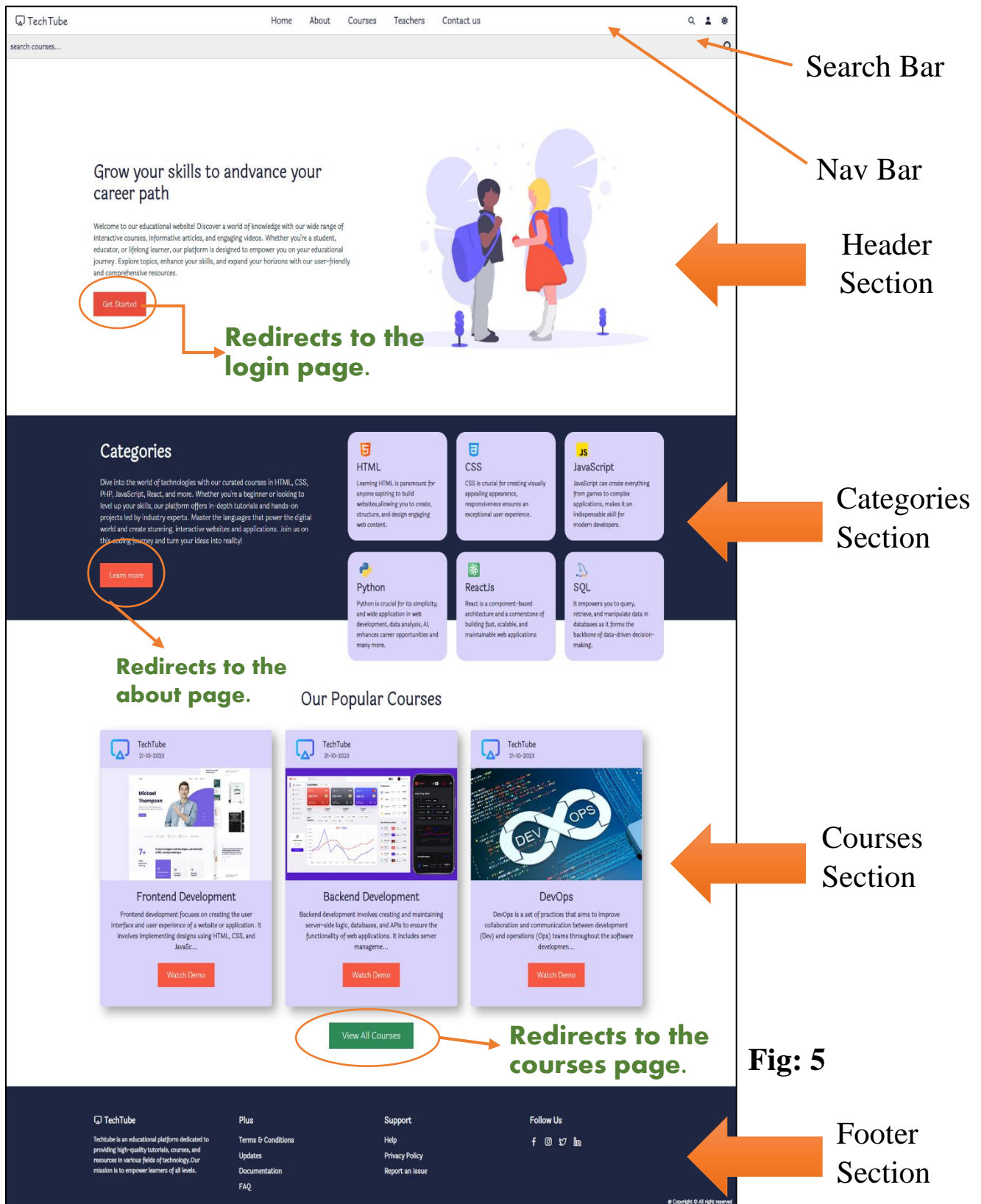
Please login or register
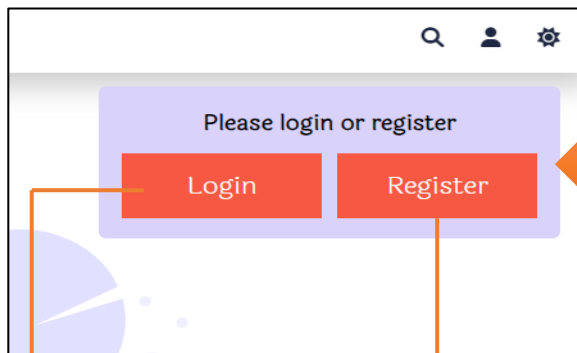
Login   **Register**

Redirects to login
or register page
accordingly.

Fig: 5.1

TechTube   Home About Courses Teachers Contact us

Welcome to TechTube!

Join our community by creating your account today. Gain access to a world of educational resources, interactive courses, and expert guidance. Let us be your partner on your journey towards academic excellence. Sign up now and embark on a path to limitless learning and growth.

Create Account

Enter your name

Enter your email

Enter your password

Confirm your password

Choose File No file chosen

already have an account? Login now

Register Now

Fig: 5.2

TechTube   Home About Courses Teachers Contact us

Hello, Again!

We're delighted to see you return. Reconnect with your personalized dashboard, track your progress, and resume your learning journey seamlessly. Login now and let's continue this inspiring journey together.

User Login

kunalkesh.2682@gmail.com

••••••••

☐ Remember password

Login Now

don't have an account? Register now

Fig: 5.3

Profile page

Fig: 5.4

Redirects to the Profile Page, to view profile picture liked, commented & saved tutorials.
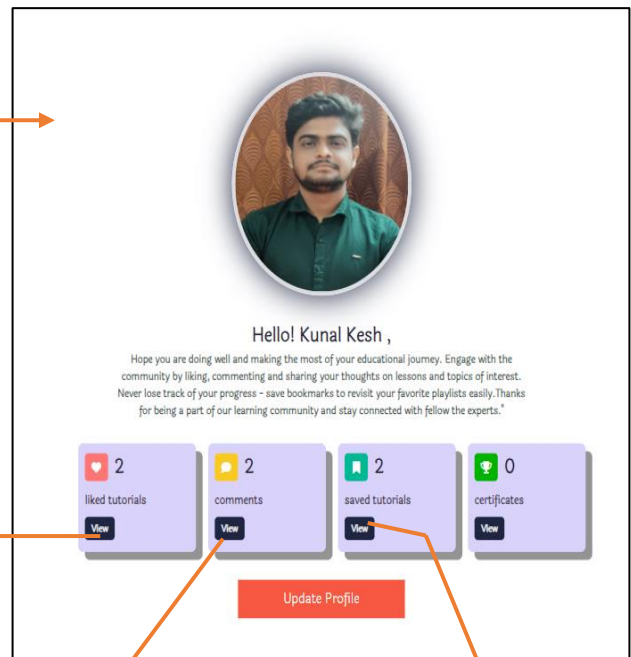
Fig: 5.5
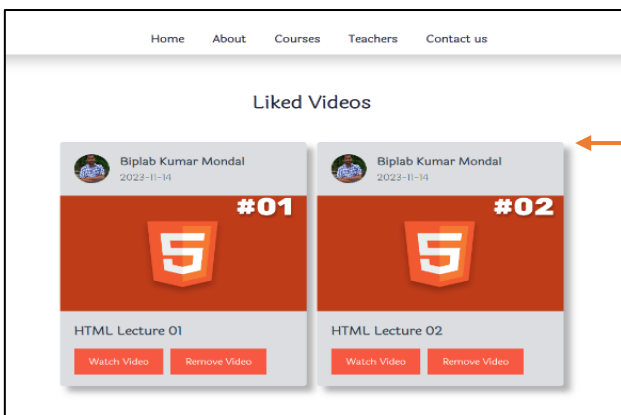
Fig: 5.6
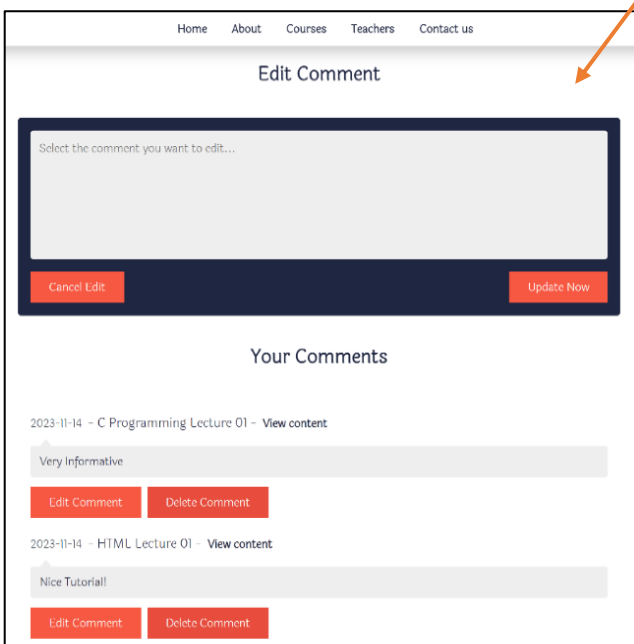
Fig: 5.7

Fig: 5.8

Update Profile

Fig: 5.9

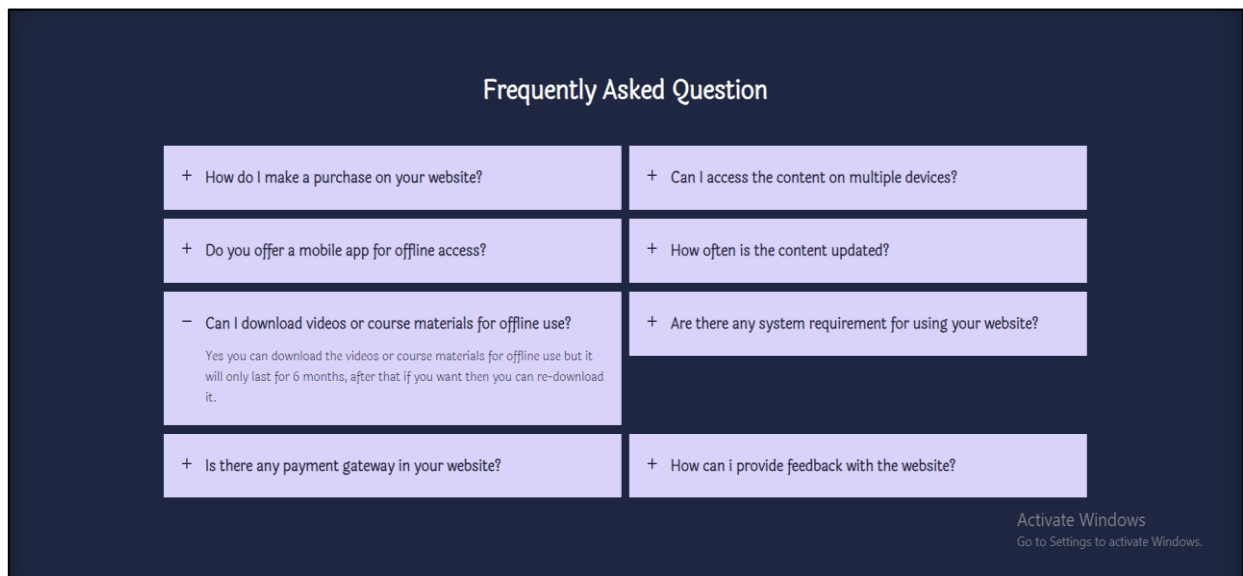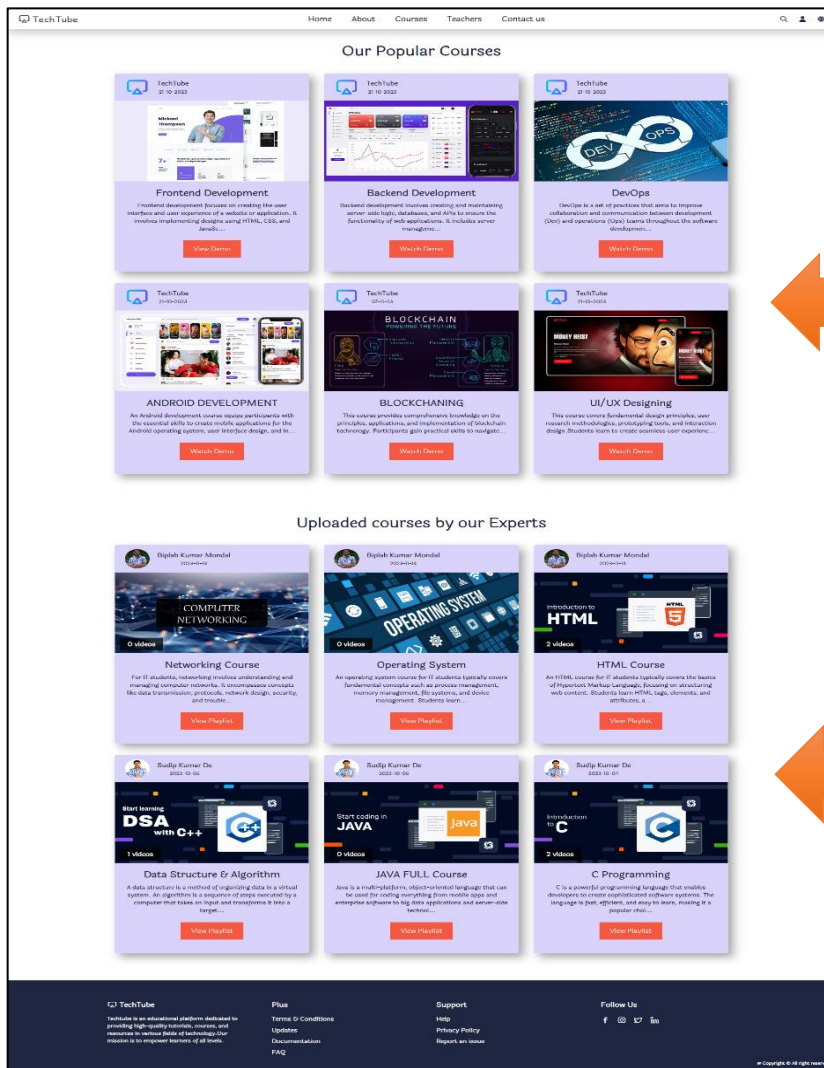# About Page

Fig: 6

Fig: 6.1

Courses Page

Demo video Section

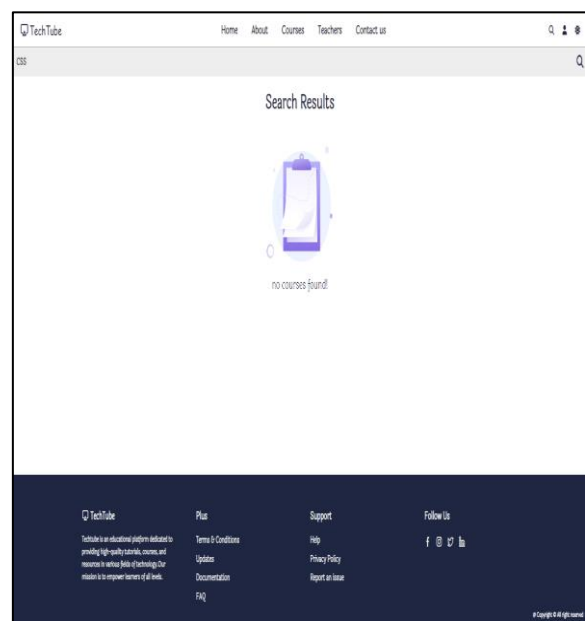Uploaded Course Section

Fig: 7
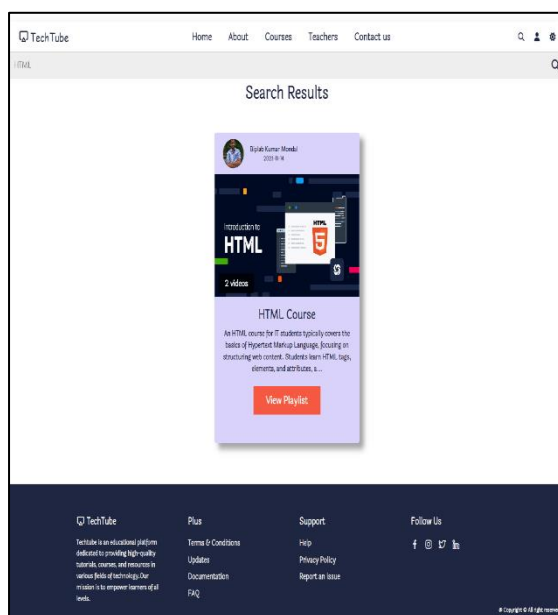
Fig: 7.1

Fig: 7.2

Playlist/Watch Video page

Fig: 8

Fig: 8.1

Likes Count

Comment Section

Video Control
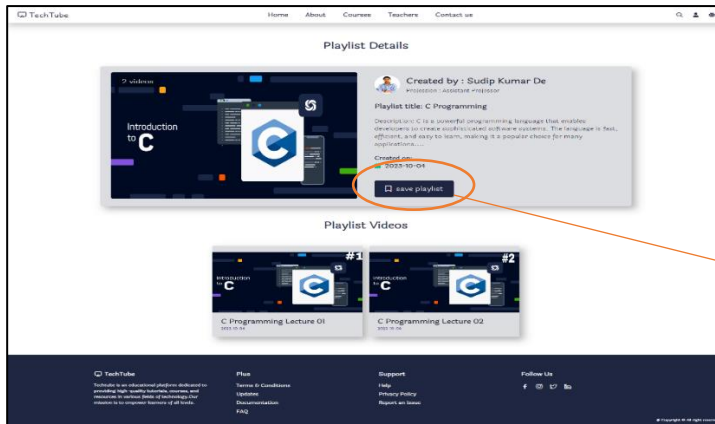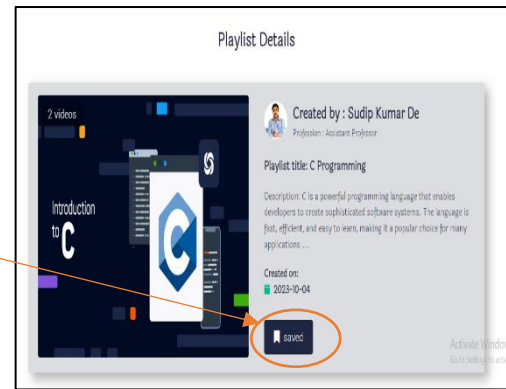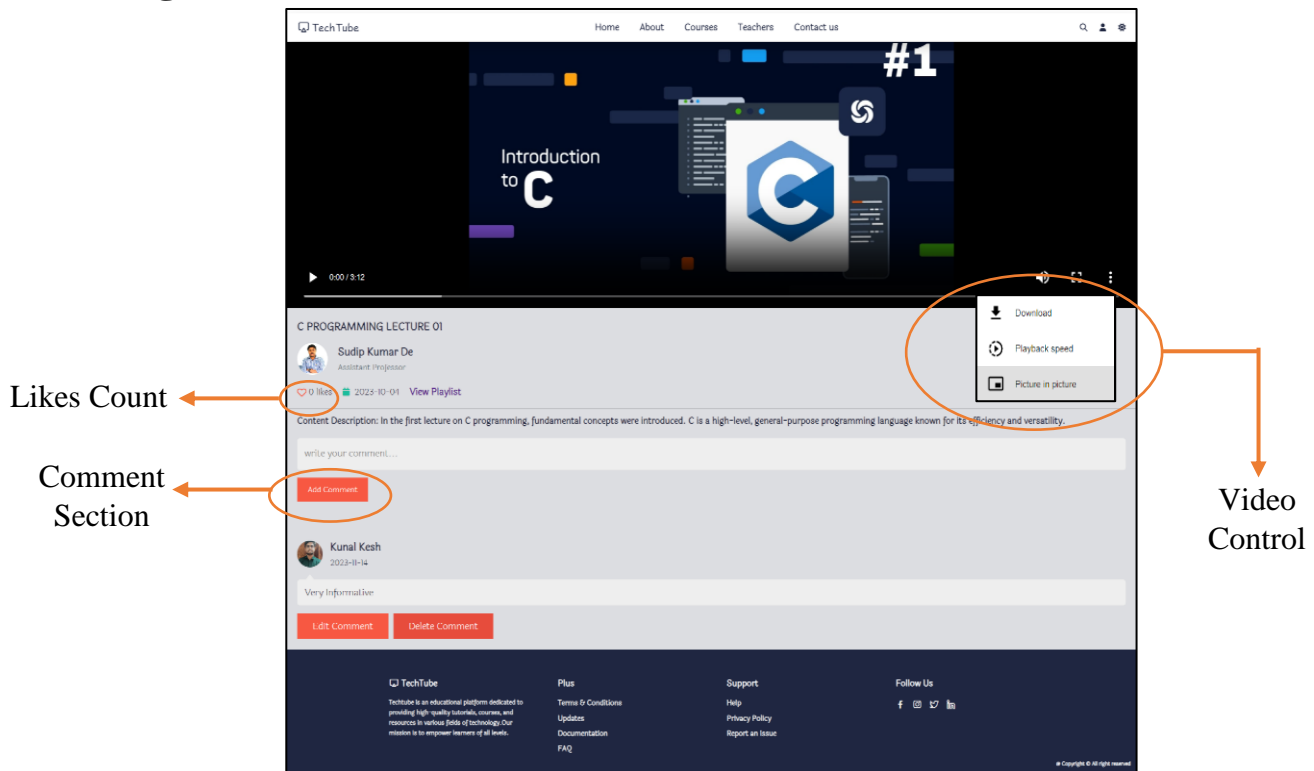
Fig: 8.3
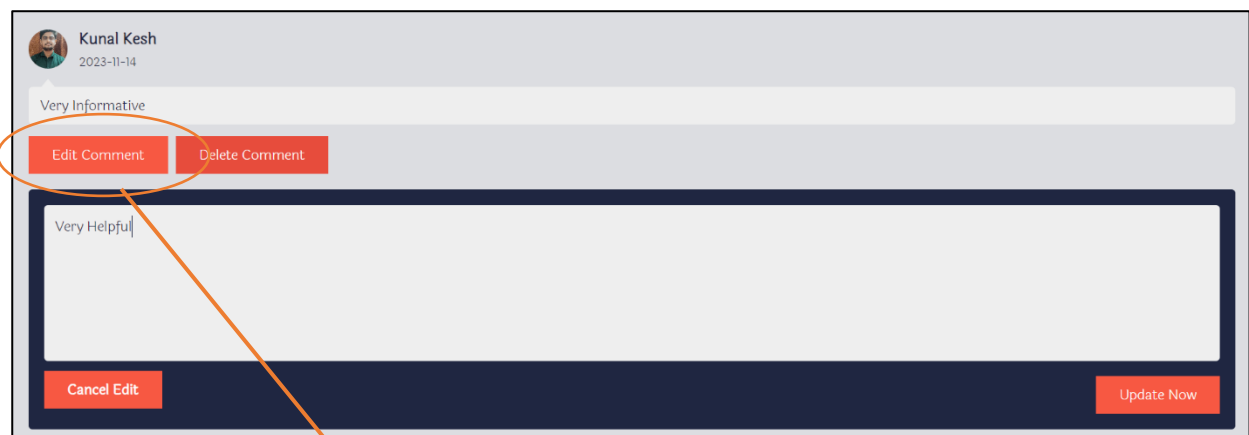
Edit Comments

Fig: 8.4

Teachers Page

Redirects to the teacher's profile page
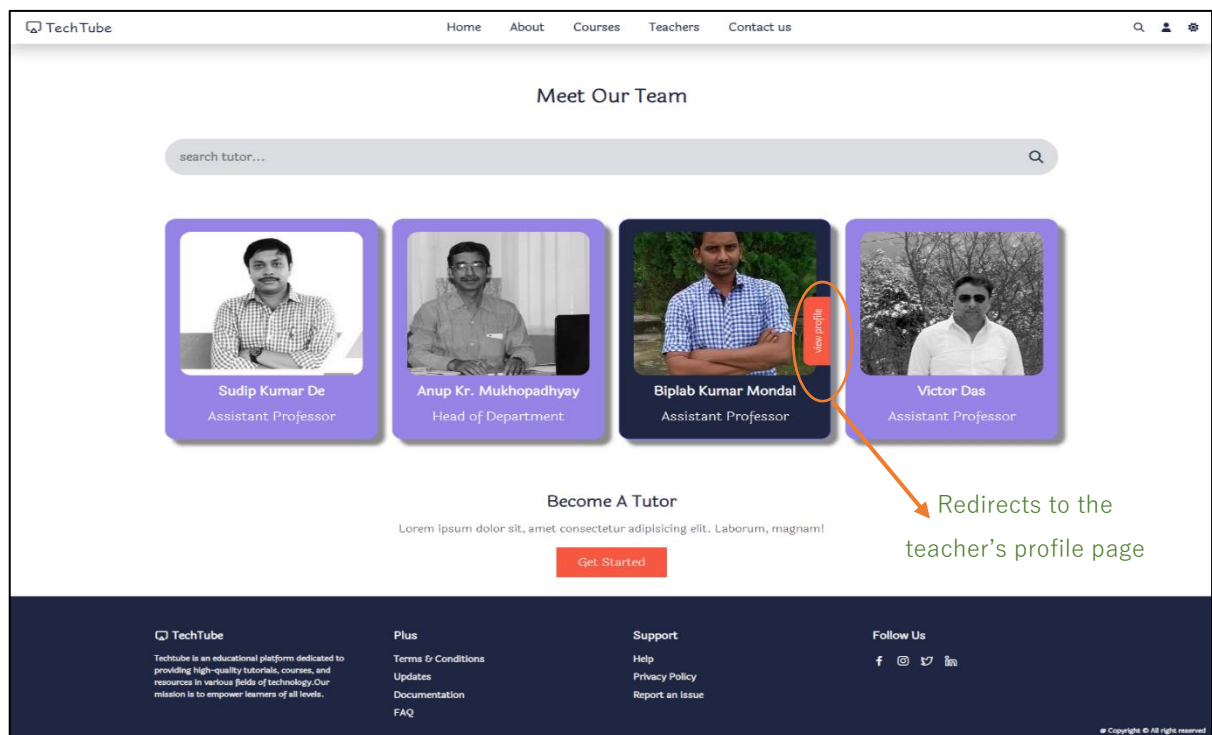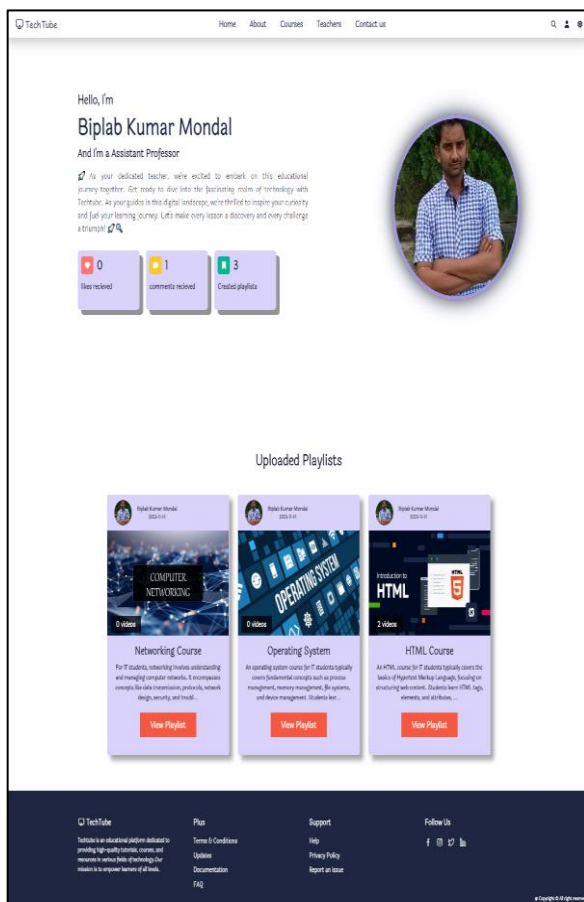
Fig: 9

Fig: 9.1
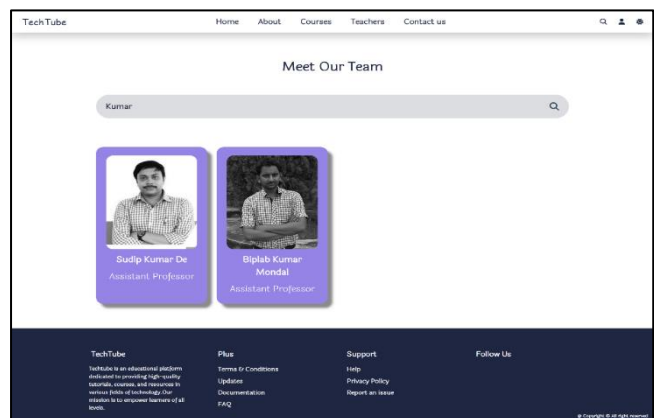
Fig: 9.2

Fig: 9.3

Contact Page

Send Queries

Fig: 10

Dark Mode

Dark Mode Enabled
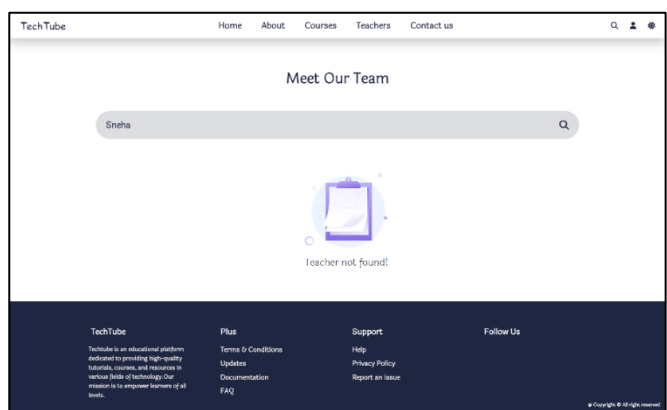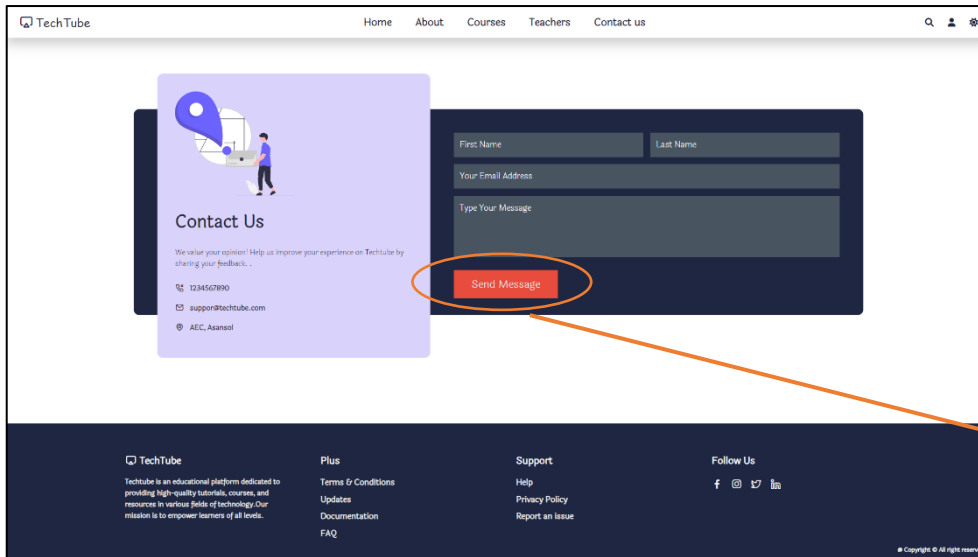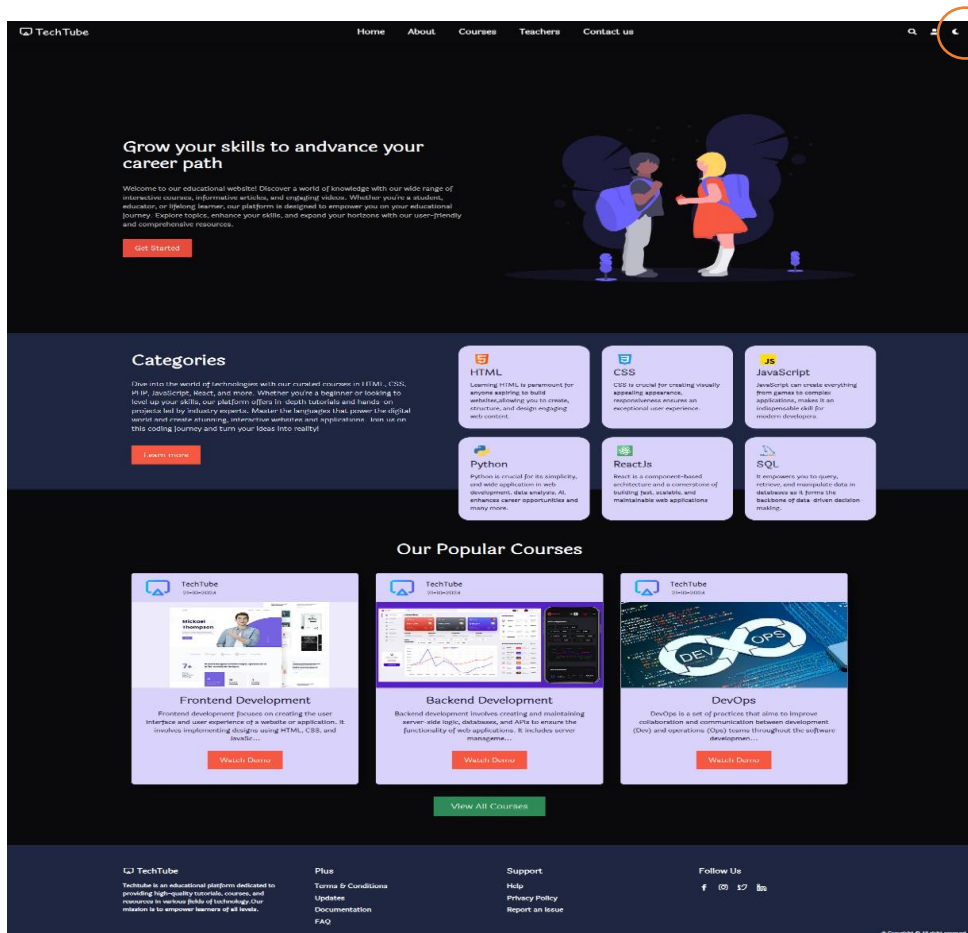
Fig: 11

Admin Portal:
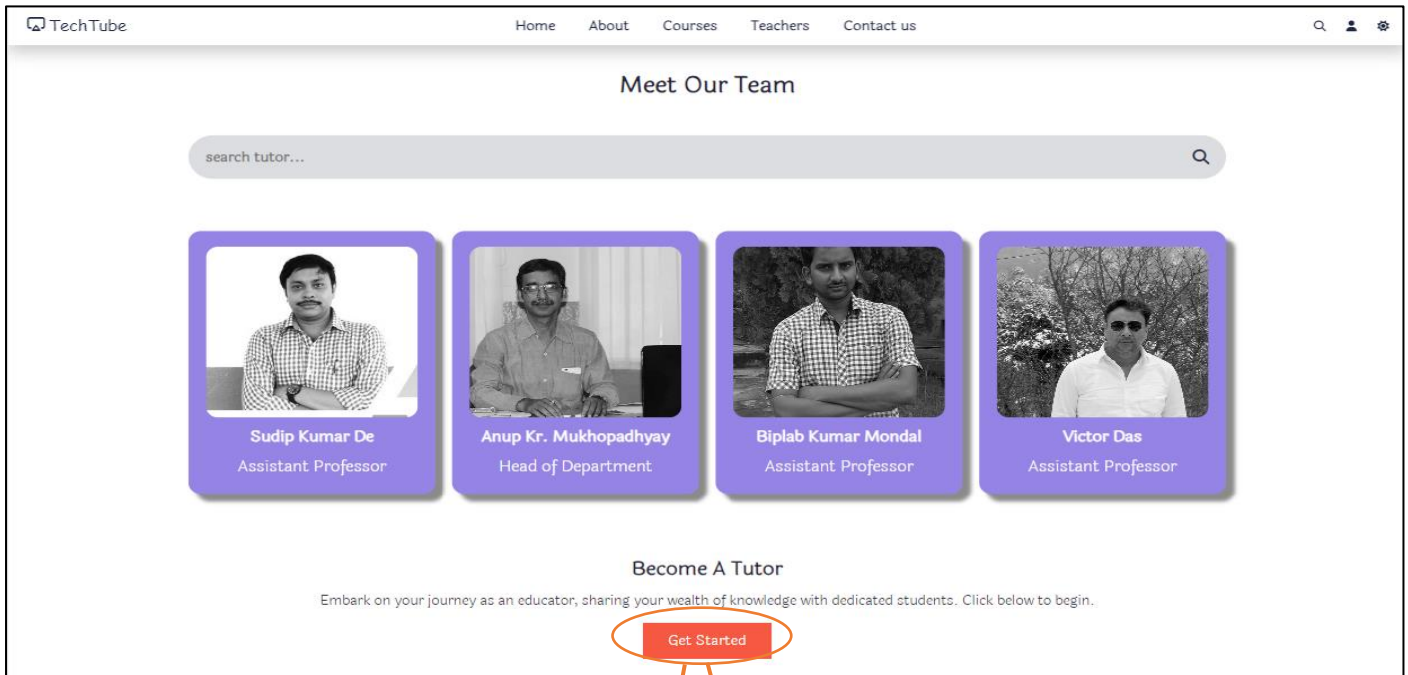
Fig: 12   Redirects to Login / Register Page

Login/Register

Fig: 12.1

Fig: 12.2

Dashboard

Nav Bar

Add New Playlist

Add New Content

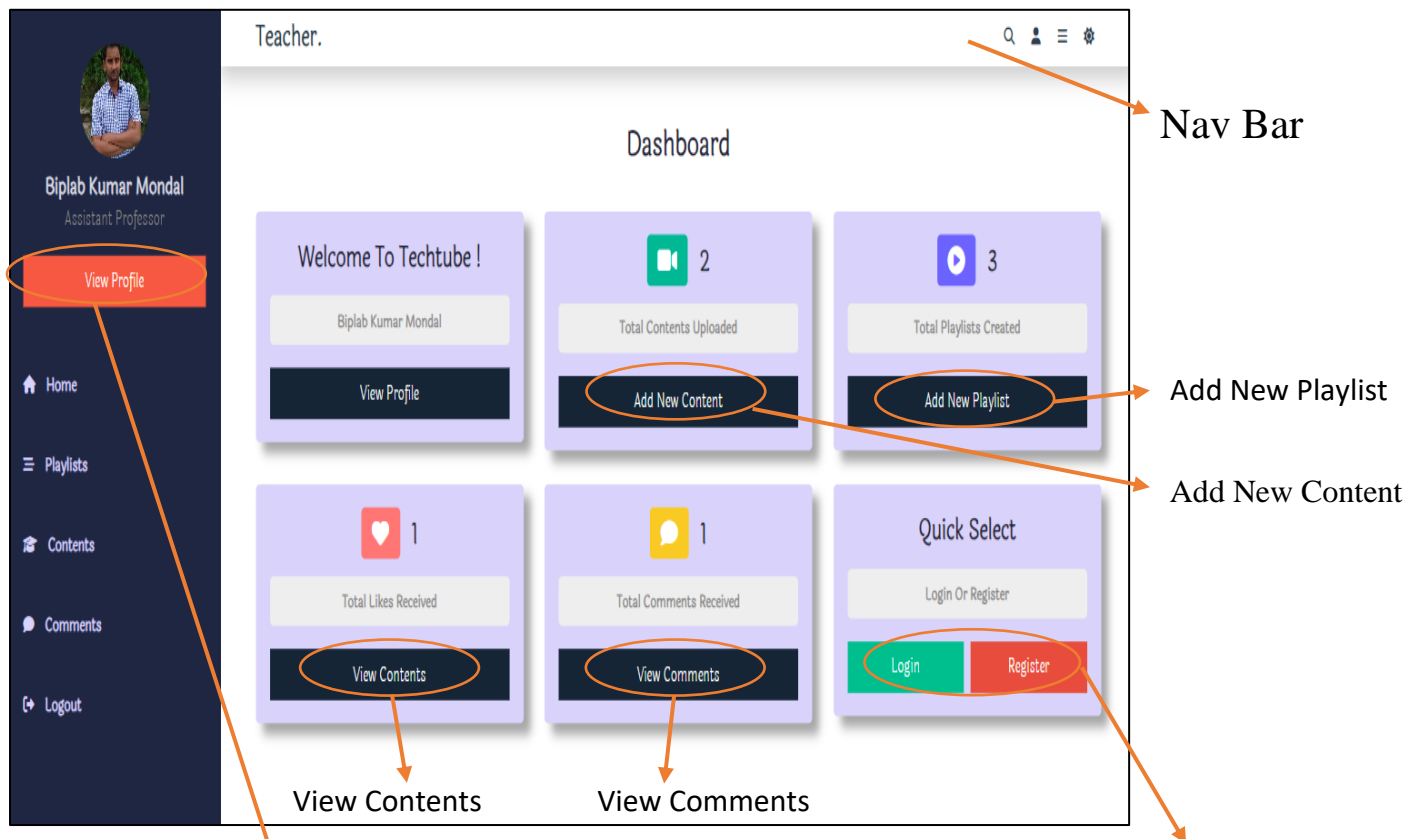View Contents

View Comments

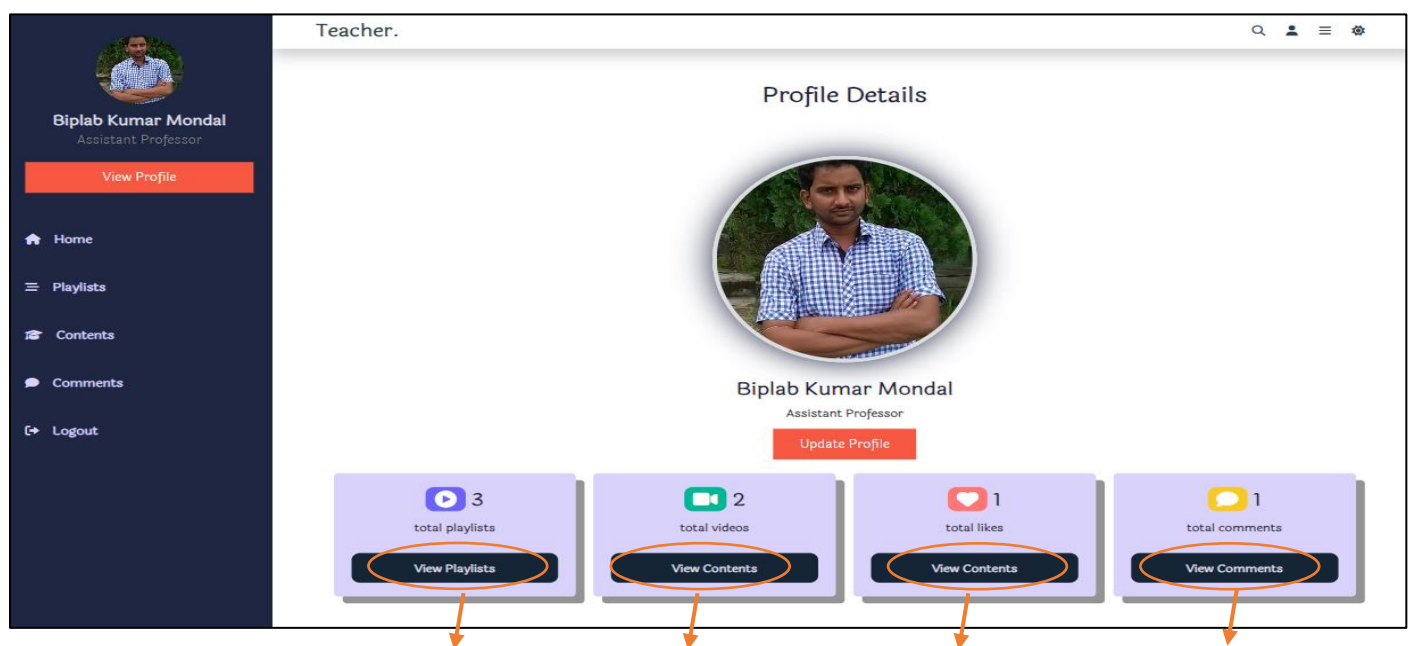Redirects to Login / Register

Fig: 13

Profile Page

Fig: 13.1

View Playlists

View Contents

View Likes

View Comments

Playlist Page
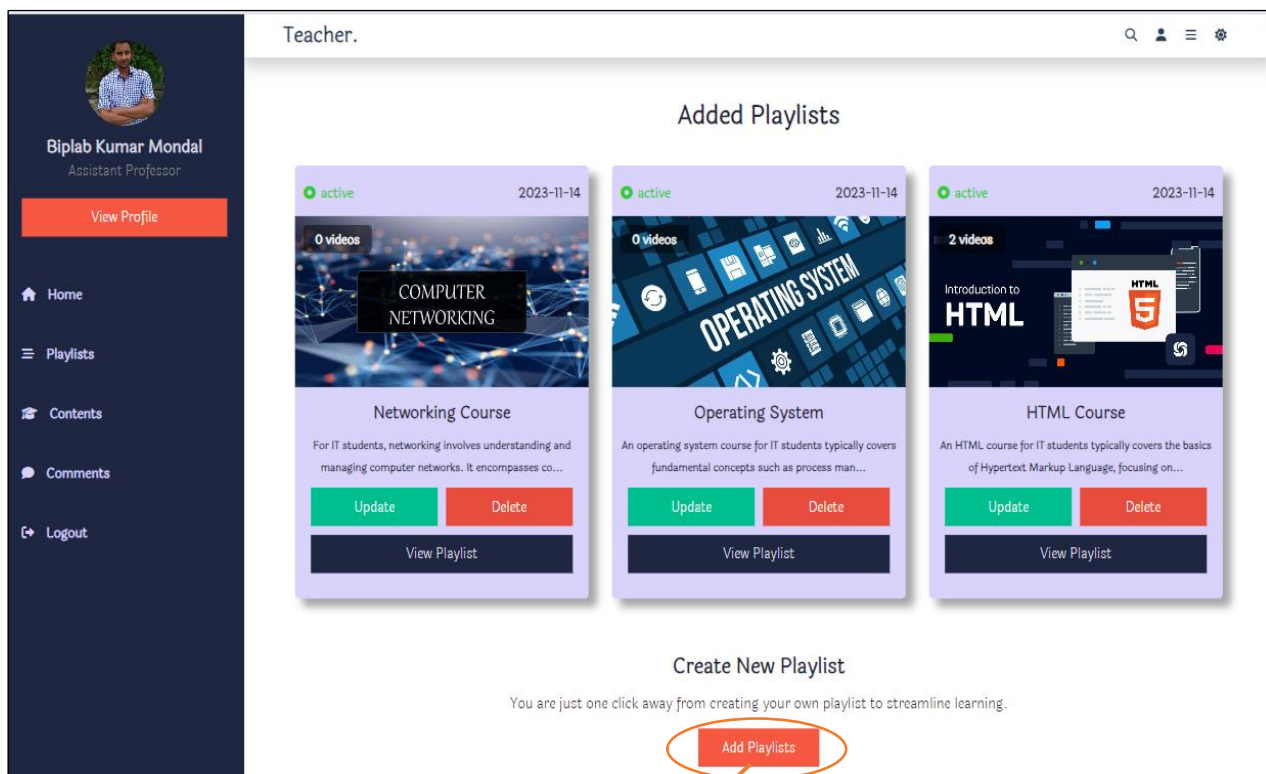
Fig: 14

Redirects to Add Playlist Form

Shows Status of the Playlist

Input for Playlist's Title

Input for Playlist's Description

Input for Playlist's Thumbnail

Fig: 14.1

Update Playlist Page

Update Playlist

Playlist Status *
active

Playlist Title *
Networking Course

Playlist Description *
firewalls, and wireless technologies. Practical skills in configuring and maintaining networks are crucial, along with knowledge of emerging technologies like SDN (Software-Defined Networking) and cloud networking. Continuous learning is essential in this dynamic field to keep up with advancements and security challenges.

Playlist Thumbnail *
OVideos
COMPUTER NETWORKING

Choose File | No file chosen

Delete   View Playlist

Update Playlist

→ Update Status of the Playlist

→ Update Playlist's Title

→ Update Playlist's Description

Fig: 14.2

→ Update Playlist's Thumbnail

View Playlist Page

Teacher.

Playlist Details

COMPUTER NETWORKING

Networking Course
📅 2023-11-14

For IT students, networking involves understanding and managing computer networks. It encompasses concepts like data transmission, protocols, network design, security, and troubleshooting. Key topics include TCP/IP, OSI model, routers, switches, firewalls, and wireless technologies. Practical skills in configuring and maintaining networks are crucial, along with knowledge of emerging technologies like SDN (Software-Defined Networking) and cloud networking. Continuous learning is essential in this dynamic field to keep up with advancements and security challenges.

Update Playlist   Delete Playlist

Playlist Videos

Fig: 14.3

no videos added yet!

Add Videos

Content Page

Fig: 15

Redirects to Watch Content Page
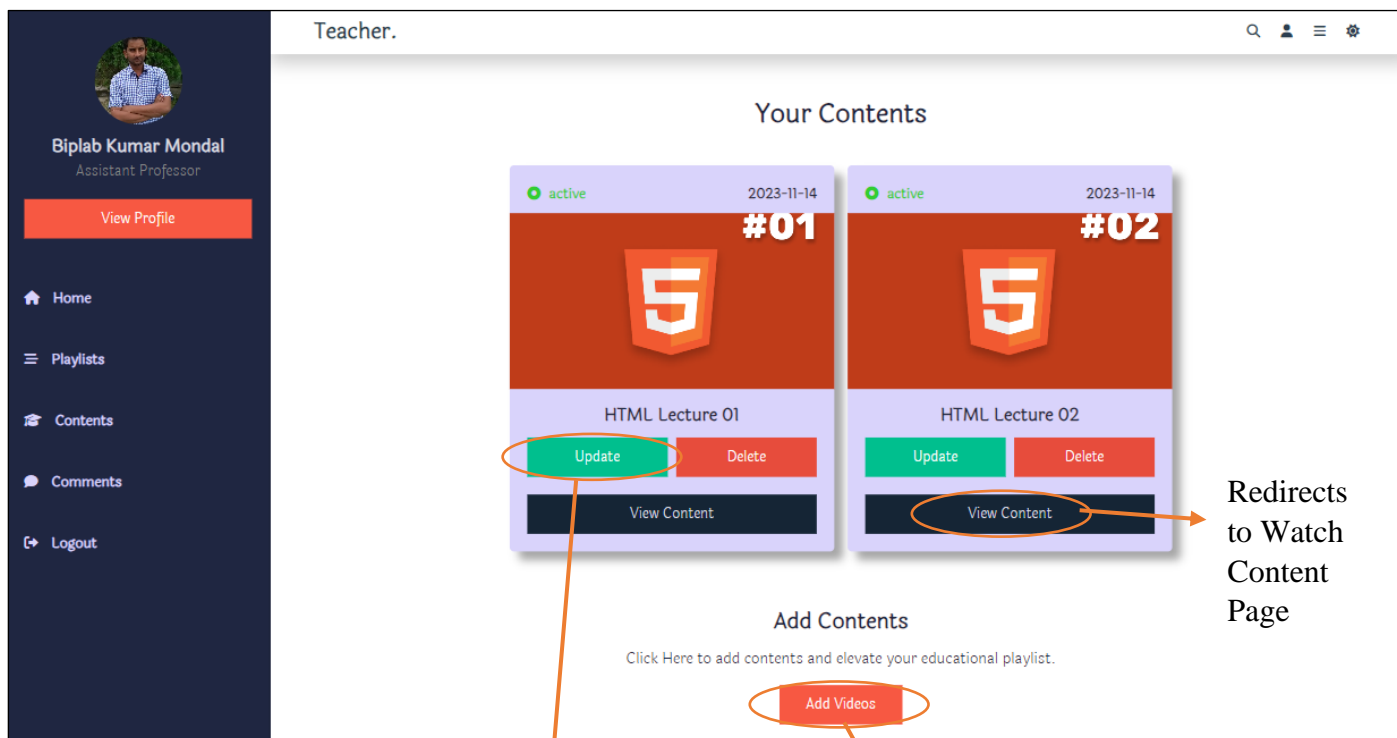
Redirects to Update Content form

Redirects to Upload Content form

Fig: 15.1

Fig: 15.2

Watch Content Page

Watch Video

2023-11-14

HTML Lecture 01 → Title of the Video

❤ 1 Likes 💬 1 Comments

HTML Lecture 01 introduces students to the fundamental concepts of Hypertext Markup Language (HTML), the backbone of web development. The lecture covers the basics of HTML syntax, structure, and essential tags. Students learn how to create a basic HTML document, understand the document structure with headings, paragraphs, and lists, and incorporate hyperlinks. Emphasis is placed on hands-on practice to ensure students gain practical skills in coding and creating simple web pages. The goal is to provide a solid foundation for further exploration of web development technologies.

Update | Delete → Deletes the Content

Description of the Video

Redirects to Update Content form

User Comments → Shows User Comments

Kunal Kesh
2023-11-14

Nice Tutorial!

Delete Comment

Deletes User Comment

Fig: 15.3

Comment Page

Shows User Comments

User Log Out

Fig: 16

Search Bar

Searches for Contents and Playlists
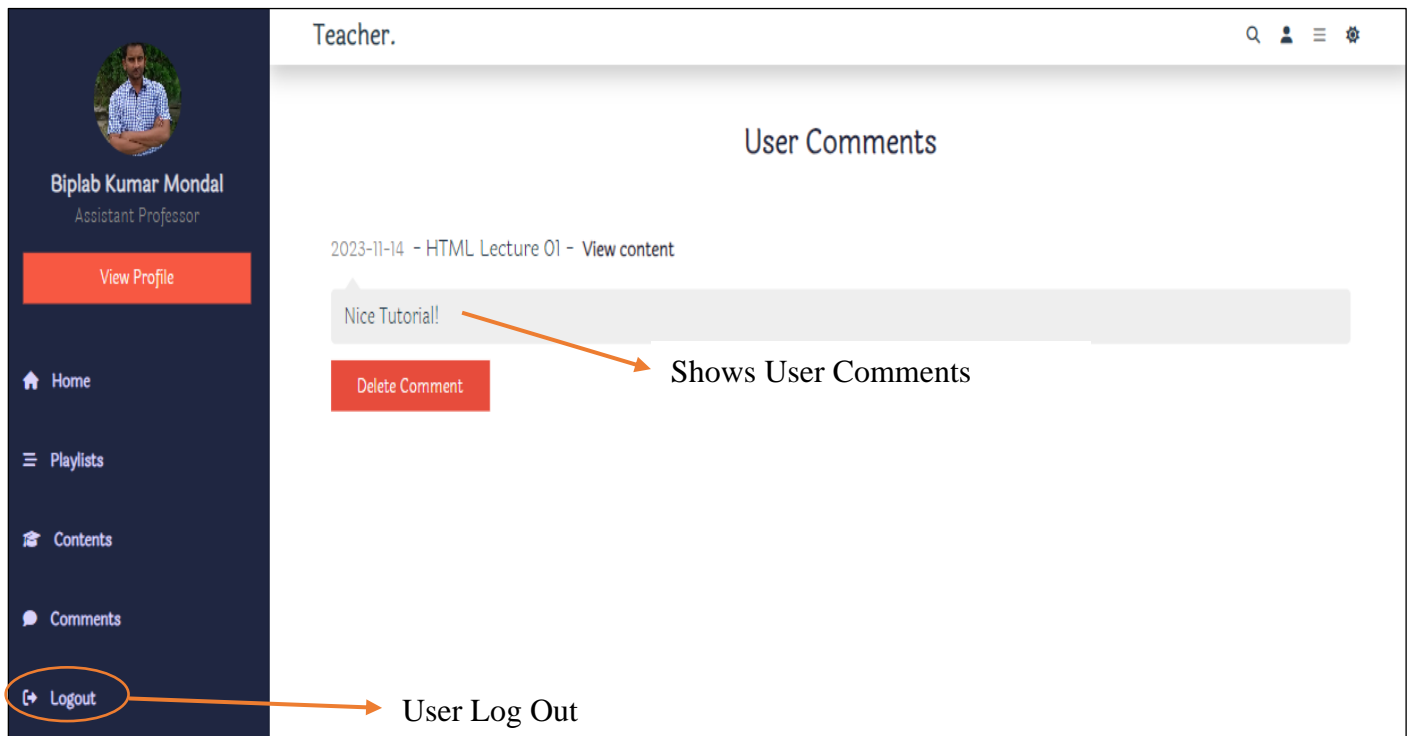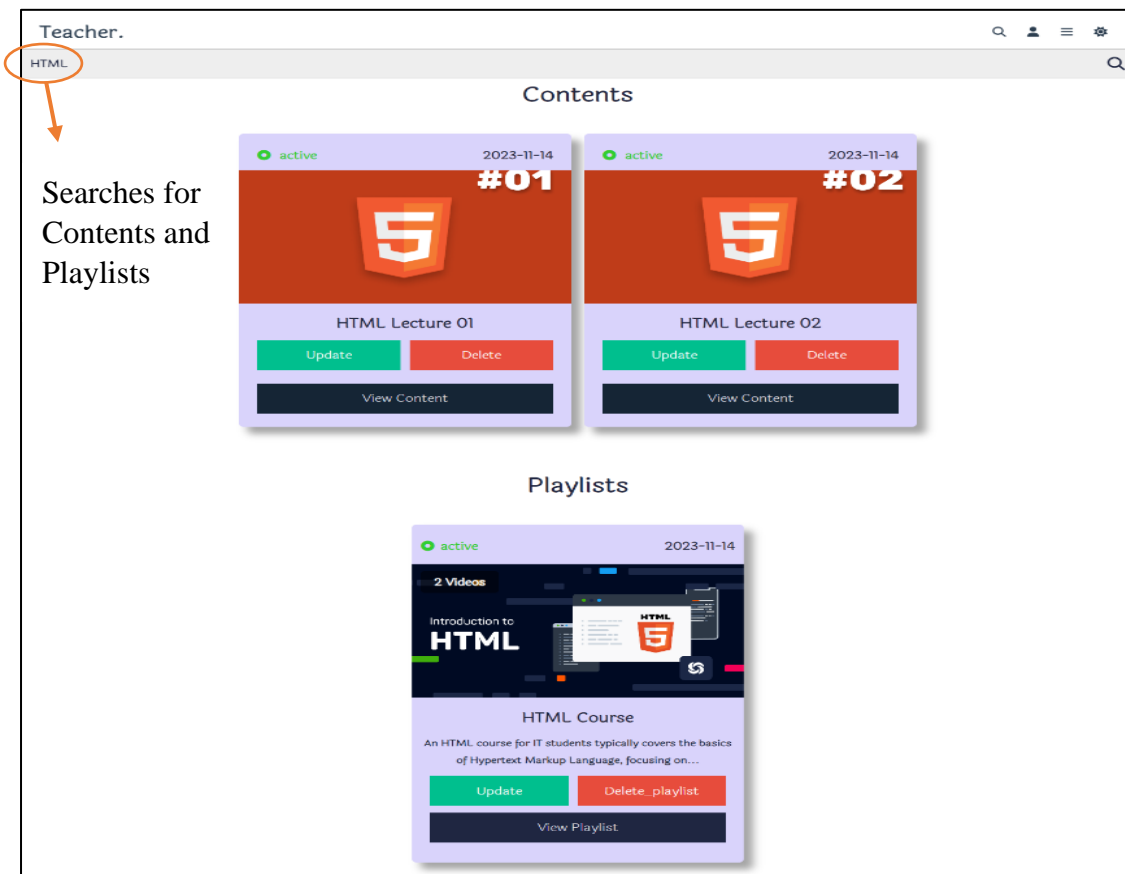
Fig: 17
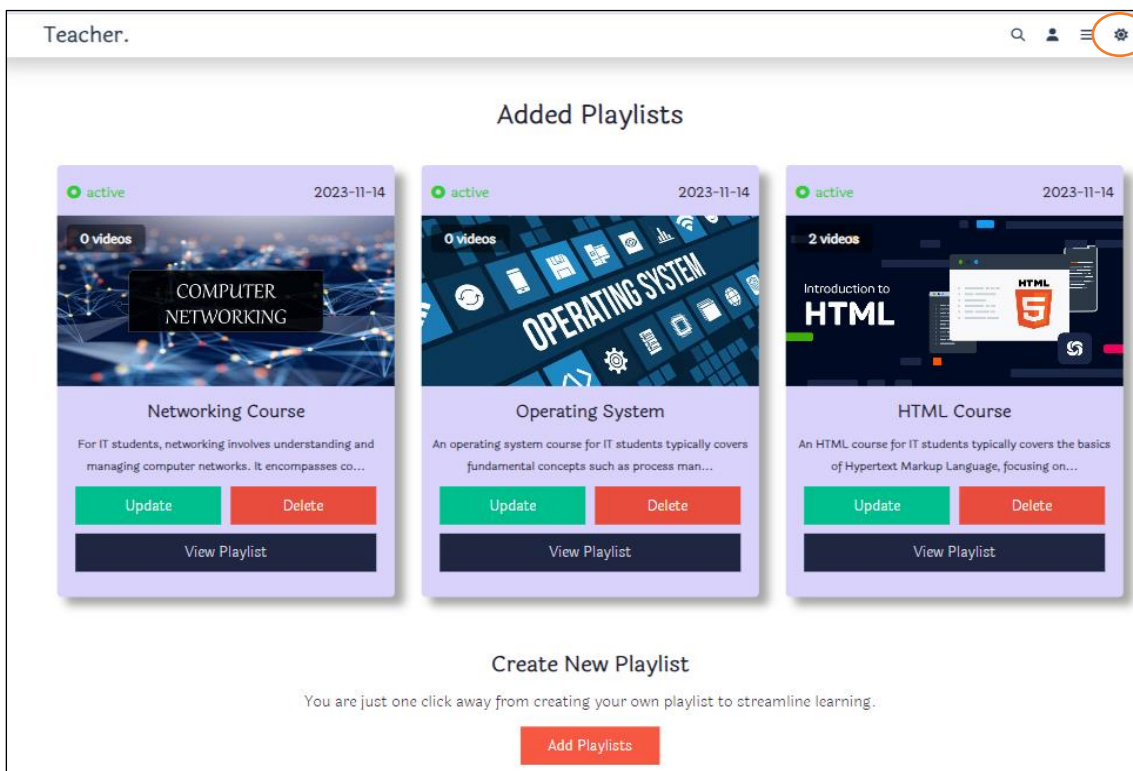
Dark Mode

Fig: 18

Dark Mode
Applied
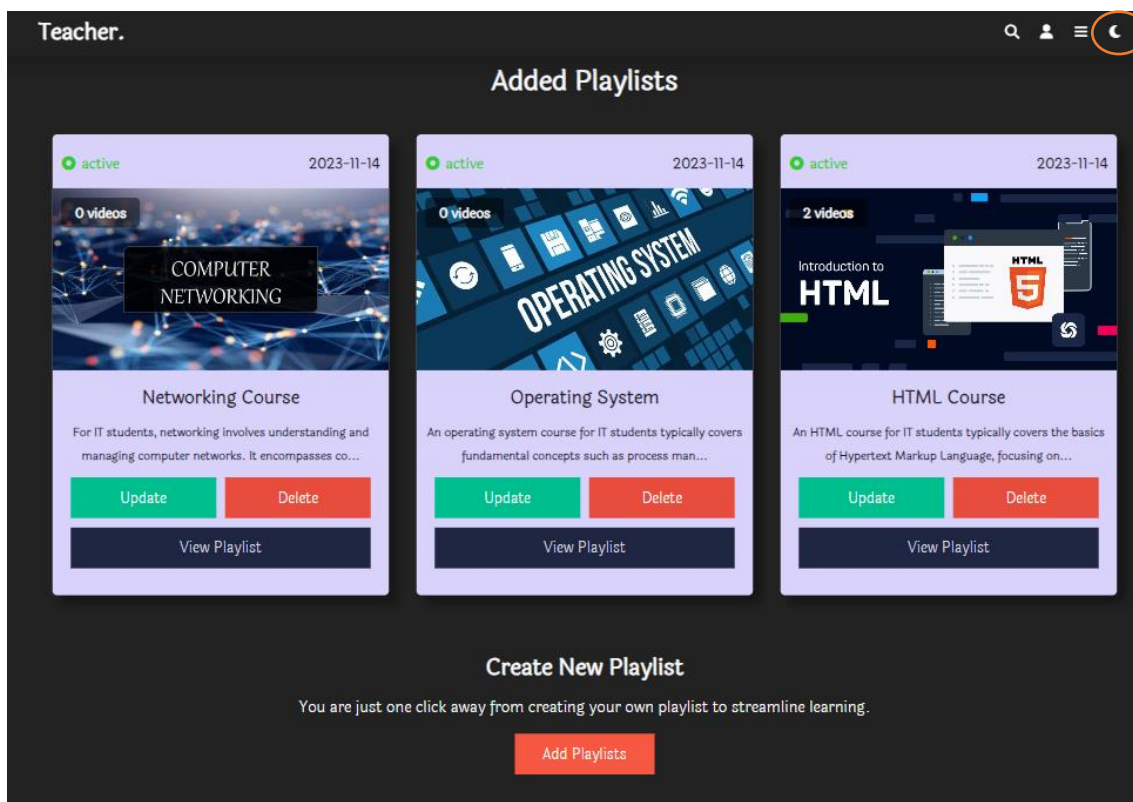
Responsiveness Student Portal (Tab & Mobile View)

Mobile View

IPhone SE
(375 x 667)

Hamburger
Menu

Fig: 19

Tablet View

IPad Pro
(1024 x 1366)

Nav Menu
in Tablet
View

Fig: 20

Responsiveness Admin Portal (Tab & Mobile View)

Hamburger Menu

Mobile View

iPhone SE (375 x 667)

Fig: 21

Tablet View

iPad Pro (1024 x 1366)

Fig: 22

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<u>CONLUSION</u>

In conclusion, Techtube serves as a commendable educational website, providing a wealth of learning opportunities for users. Through its diverse array of content, ranging from tutorials and lectures to practical demonstrations, Techtube caters to a broad au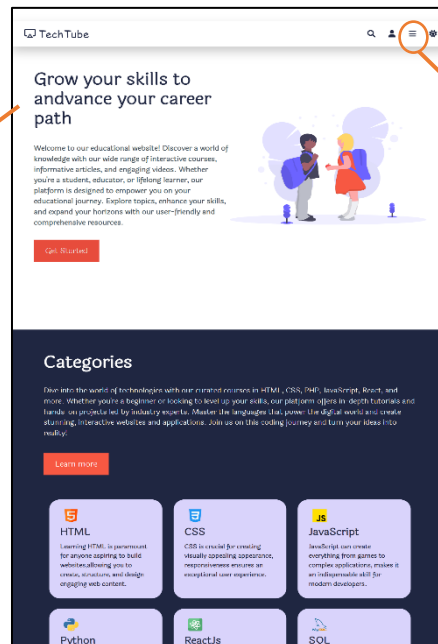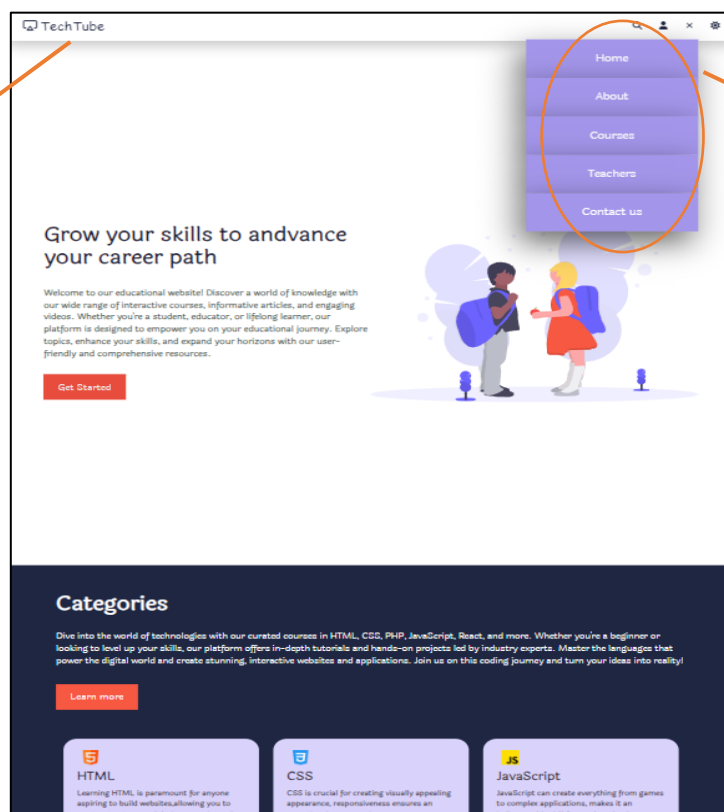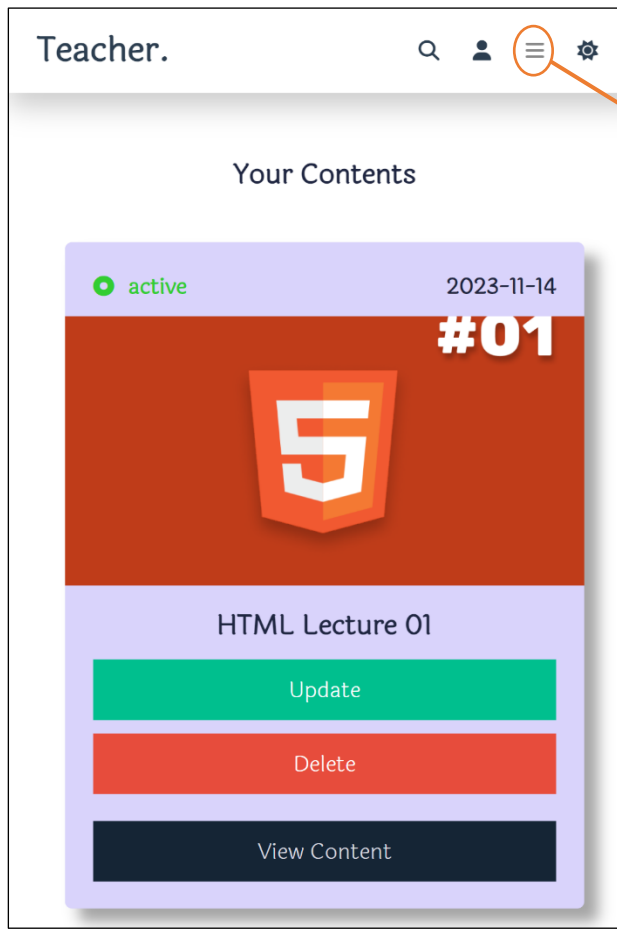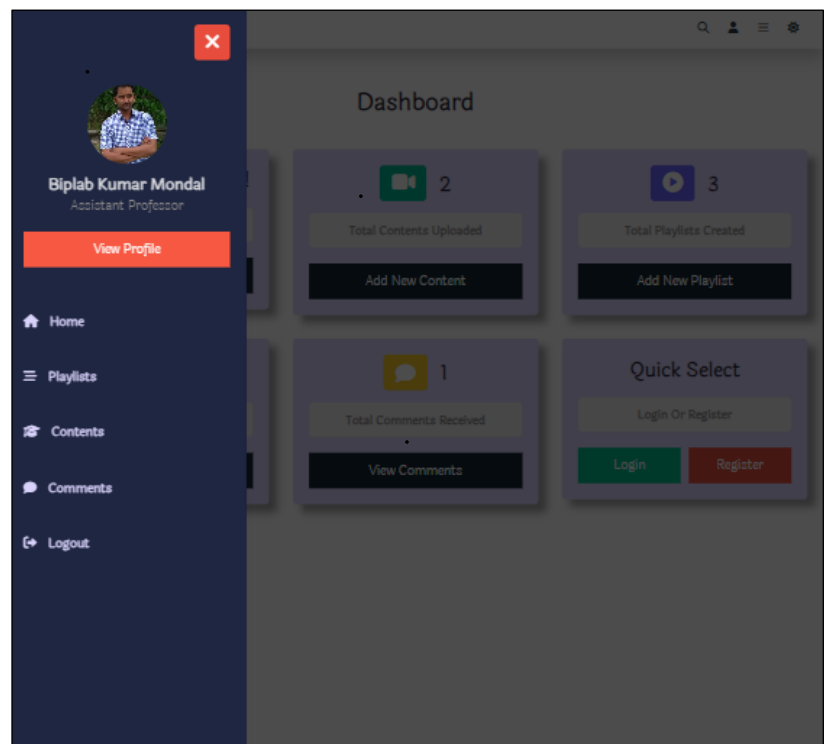dience with varied learning preferences. The platform's user-friendly interface enhances the overall learning experience, allowing for seamless navigation and accessibility.

Moreover, Techtube's commitment to quality education is evident in the meticulous carnation of its content, ensuring relevance and accuracy. The inclusion of interactive features and community engagement further fosters a dynamic learning environment, encouraging collaboration and knowledge-sharing among users. As a valuable resource, Techtube not only imparts knowledge but also inspires a spirit of curiosity and continuous learning. Whether one is a novice or an expert in a particular field, Techtube stands as a reliable companion on the journey of educational exploration, making it a noteworthy platform in the realm of online education.

FUTURE SCOPE

The future scope of TechTube, with its innovative certificate system, is expansive and promising. By integrating automatic certificate generation contingent on successful course completion, we are poised to revolutionize online learning. This feature not only incentivizes students to genuinely engage with the course material but also ensures the credibility and value of the certification.

One key future development is the enhancement of our pop-up question mechanism. By refining the timing and difficulty of the pop-up questions, we can ensure that each student remains actively engaged and appropriately challenged. This will enhance the overall learning experience by preventing passive consumption of the content and promoting active participation.

Moreover, the integration of advanced analytics will allow instructors to gain deeper insights into student performance and engagement patterns. This can inform continuous improvement of course content and instructional strategies, leading to more effective learning outcomes.

REFERENCE

- ➢ **https://flatuicolors.com/palette/defo**
- ➢ **https://www.flaticon.com/**
- ➢ **https://www.youtube.com**
- ➢ **https://www.pngegg.com/**
- ➢ **https://fonts.google.com/**
- ➢ **https://storyset.com/**
- ➢ **https://cdnjs.com/libraries/font-awesome**
- ➢ **https://swiperjs.com/**
- ➢ **https://unicons.iconscout.com/release/v2.1.6/css/unicons.css**
- ➢ **https://formspree.io/**