



# NEXT GEN EMPLOYABILITY PROGRAM

| Creating a future-ready workforce

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College Name

Arasu Engineering College

# CAPSTONE PROJECT SHOWCASE

## Project Title

Voting Application using Django Framework-B.PRAVEEN(820621104063,AEC)

Abstract | Problem Statement | Project Overview | Proposed Solution |  
Technology Used | Modelling & Results | Conclusion



## Abstract

The proposed voting application is a web-based platform that allows users to create and participate in online votes. The application is built using the Django framework, a popular and well-supported Python-based web framework that provides a robust foundation for building scalable and secure web applications. The application is also designed to be flexible and scalable, with a modular architecture that allows for easy customization and extension. This makes it suitable for a wide range of use cases, from small-scale internal votes to large-scale public elections. Overall, the proposed voting application is a secure, user-friendly, and flexible platform for conducting online votes. Its use of the Django framework ensures a robust and scalable foundation, while its focus on security and user experience makes it an ideal choice for a wide range of voting scenarios.

## Problem Statement

Online voting has become increasingly popular in recent years, with a growing number of organizations and governments turning to digital platforms to conduct elections and polls. However, online voting also presents a number of challenges, particularly in terms of security and integrity . Overall, the proposed voting application will address the challenges of security and integrity in online voting, while also providing a user-friendly platform for conducting online votes. Its use of the Django framework will ensure a robust and scalable foundation, while its focus on security and user experience will make it an ideal choice for a wide range of voting scenarios.

In addition to its focus on security, the application will also prioritize user experience, with a clean and intuitive interface that makes it easy for users to create and participate in votes. The application will support multiple types of votes, including single-choice and multiple-choice votes, and will allow users to set deadlines and restrictions for each vote.

## Project Overview

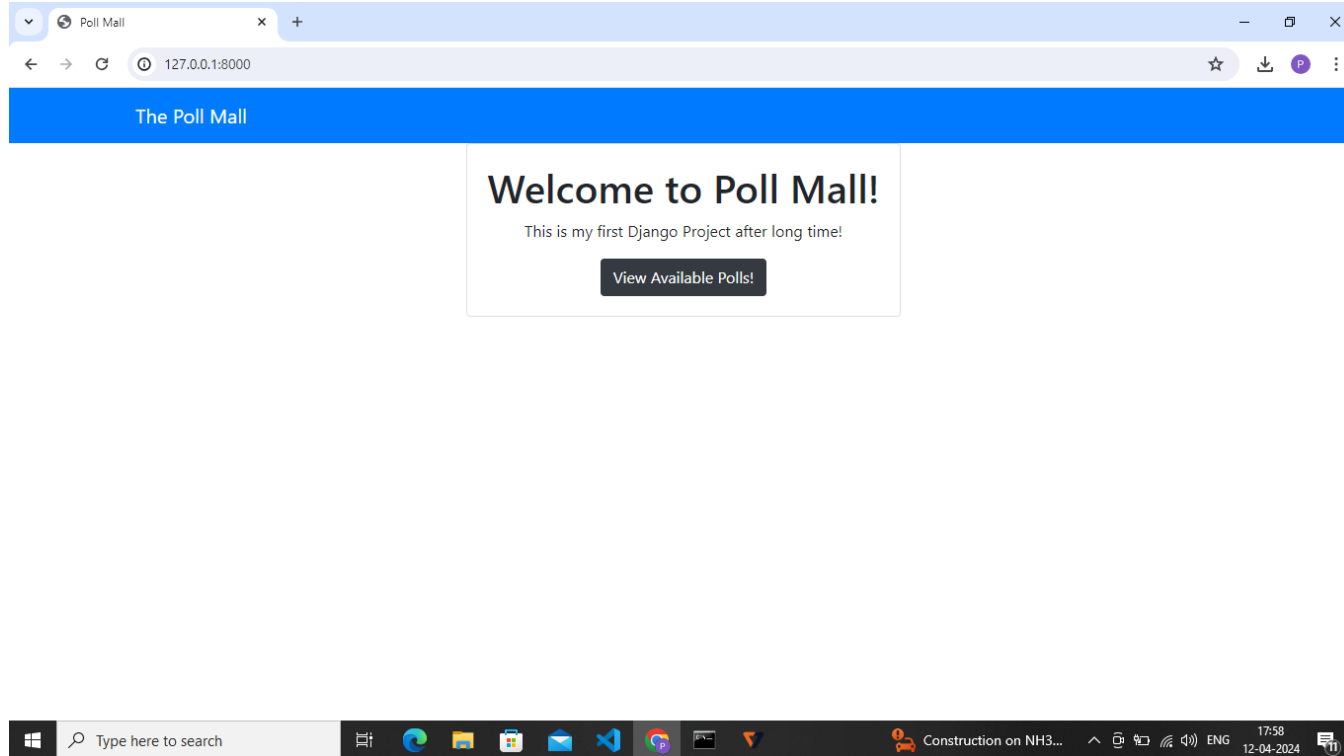
The project overview for a voting application using the Django framework involves creating a secure and user-friendly online voting system. The application allows users to register, vote, and view real-time results. Here is a steps involved in building the voting application:

- 1.Setting up a Django Project:** Create a Django project to serve as the foundation for the voting application.
- 2.Designing the Database Schema:** Define the database structure to store user information, votes, and other relevant data.
- 3.Creating User Authentication:** Implement user authentication to allow users to register, log in, and participate in voting.
- 4.Building the Voting Interface:** Develop the interface where users can view options, select their choices, and submit votes.
- 5.Implementing Real-time Results:** Display the voting results dynamically to provide instant feedback to users.
- 6.Developing an Admin Panel:** Build an admin panel to manage the voting process, candidates, and user accounts effectively.

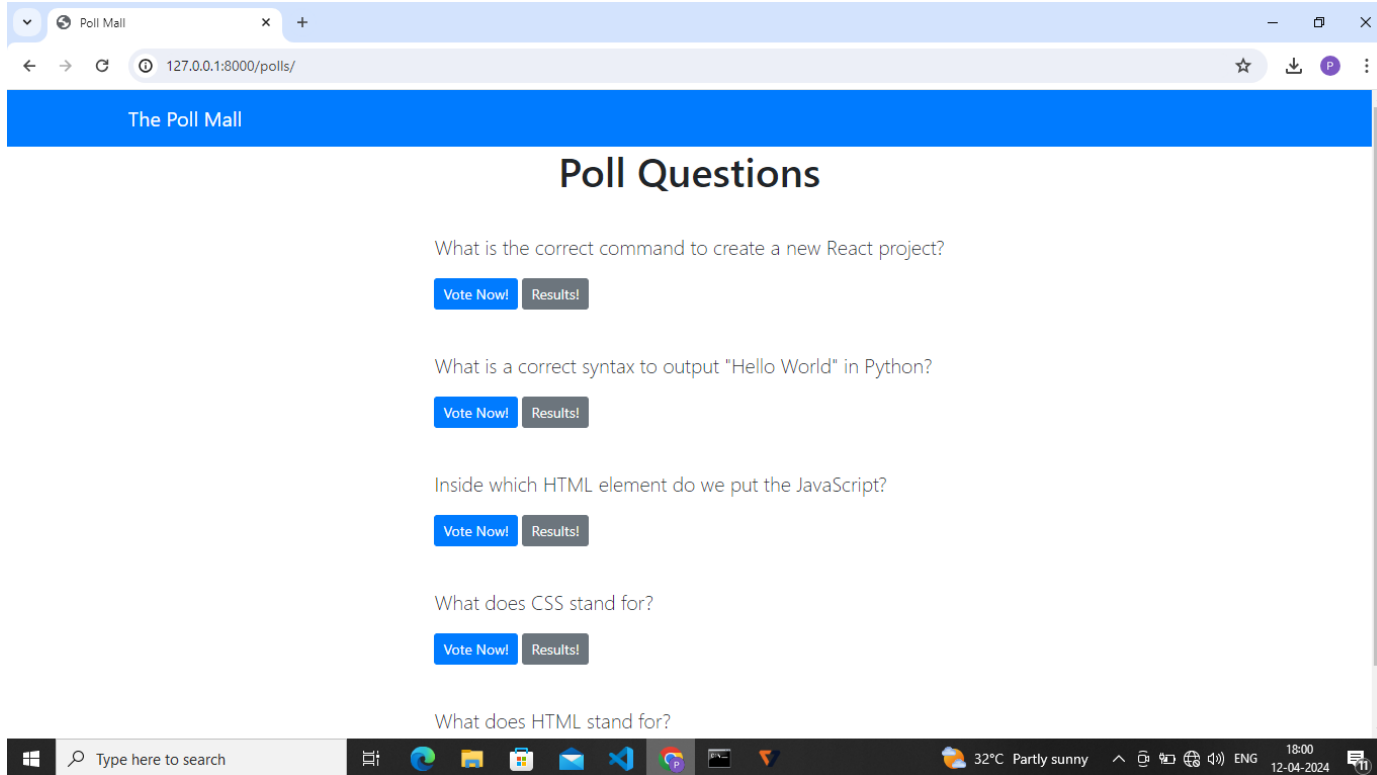
## Proposed Solution

The proposed solution for a voting application using the Django framework is to create a secure and user-friendly online voting platform. The application will allow users to register, vote, and view real-time results. To build the application, the Django framework will be used as the foundation due to its robustness and scalability. The application will have a user-friendly interface, a secure database, real-time results, and an admin panel for efficient management of elections, candidates, and user accounts. In summary, the proposed solution for a voting application using the Django framework is a secure, user-friendly, and flexible platform for conducting online votes. Its use of the Django framework ensures a robust and scalable foundation, while its focus on security and user experience makes it an ideal choice for a wide range of voting scenarios.

## Home Page



## Poll Page



The screenshot shows a web browser window with a single tab titled 'Poll Mall'. The address bar shows the URL '127.0.0.1:8000/polls/'. The page has a blue header with the text 'The Poll Mall'. Below the header, the main content area is titled 'Poll Questions' and contains five poll questions, each with a 'Vote Now!' button and a 'Results!' button.

**The Poll Mall**

### Poll Questions

What is the correct command to create a new React project?

[Vote Now!](#) [Results!](#)

What is a correct syntax to output "Hello World" in Python?

[Vote Now!](#) [Results!](#)

Inside which HTML element do we put the JavaScript?

[Vote Now!](#) [Results!](#)

What does CSS stand for?

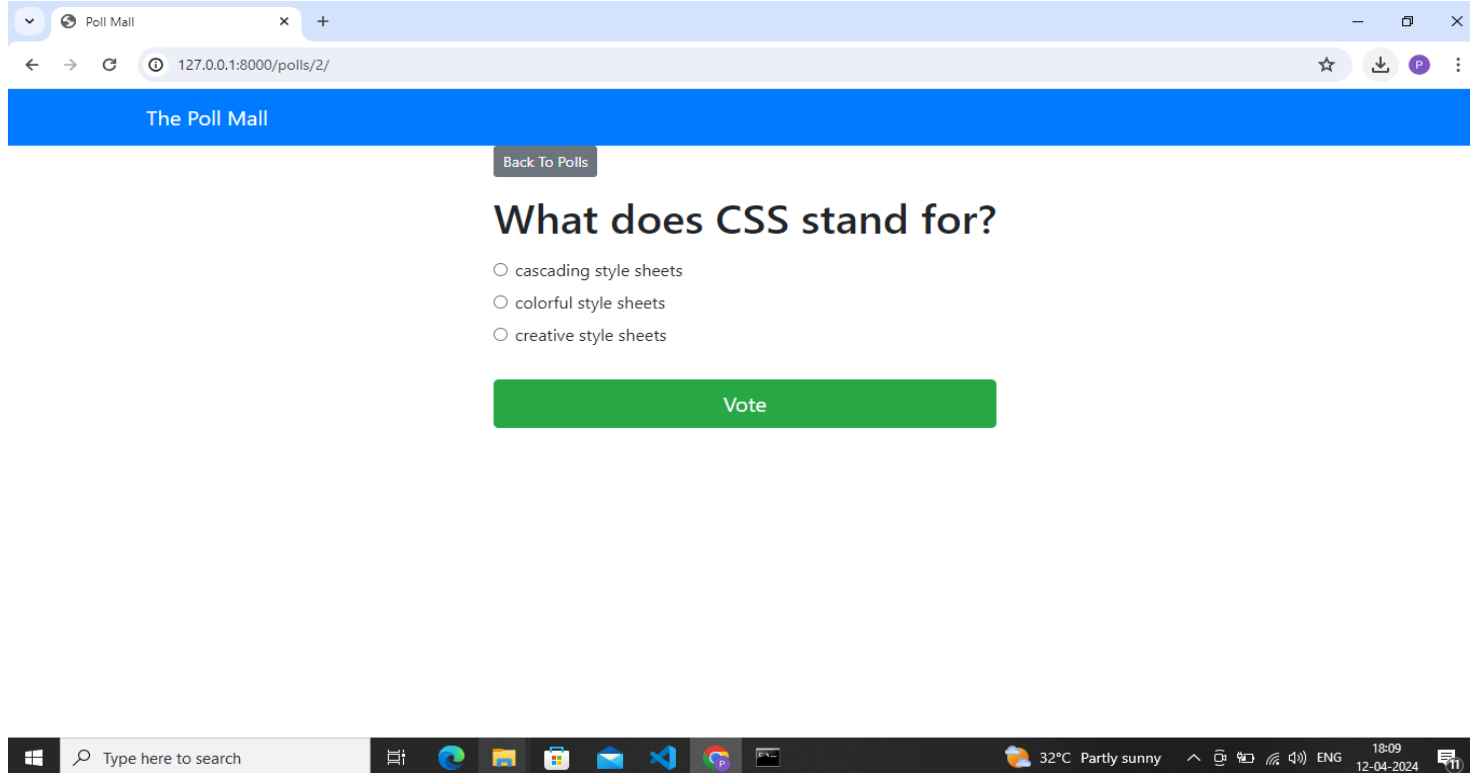
[Vote Now!](#) [Results!](#)

What does HTML stand for?

The Windows taskbar at the bottom shows the search bar with the text 'Type here to search', several application icons, and system information including '32°C Partly sunny', '18:00', and '12-04-2024'.



## Voting Page



The screenshot shows a web browser window with a single tab titled 'Poll Mall'. The address bar displays the URL '127.0.0.1:8000/polls/2/'. The page has a blue header bar with the text 'The Poll Mall'. Below the header, there is a 'Back To Polls' button. The main content area features the question 'What does CSS stand for?' followed by three radio button options: 'cascading style sheets', 'colorful style sheets', and 'creative style sheets'. At the bottom of the content area is a large green 'Vote' button. The Windows taskbar is visible at the bottom of the screen, showing the search bar, task view button, and several application icons (Edge, File Explorer, Calendar, Mail, Teams, Chrome, and a terminal). The system tray on the right shows the date and time as '12-04-2024 18:09' and the weather as '32°C Partly sunny'.

Poll Mall

127.0.0.1:8000/polls/2/

The Poll Mall

[Back To Polls](#)

What does CSS stand for?

☐ cascading style sheets

☐ colorful style sheets

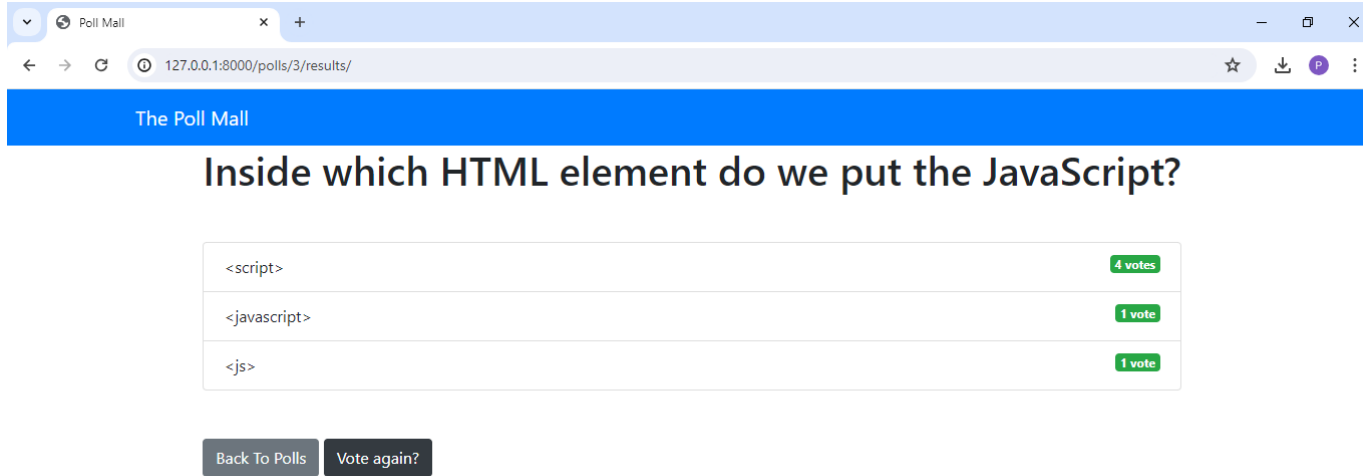
☐ creative style sheets

[Vote](#)

Type here to search

32°C Partly sunny 18:09 12-04-2024

## Voting Details Page

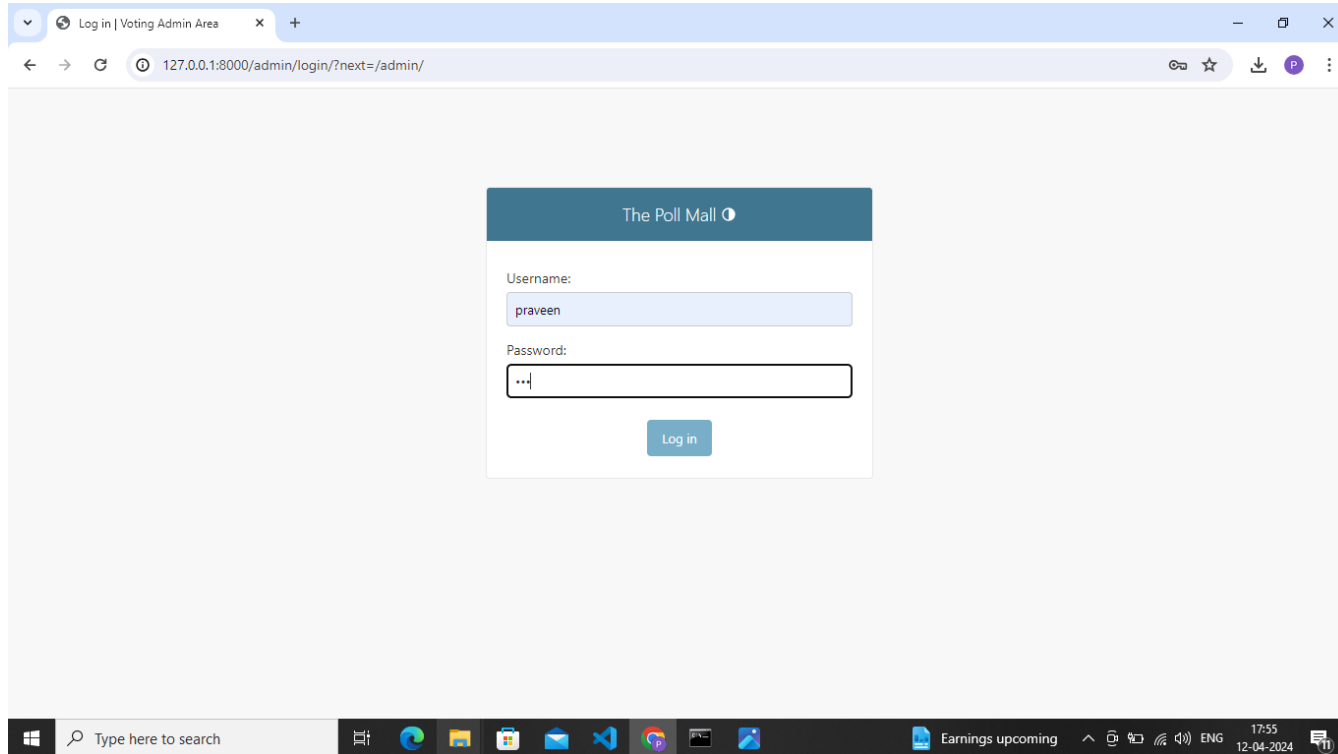


The screenshot shows a web browser window with the address bar displaying '127.0.0.1:8000/polls/3/results/'. The page title is 'The Poll Mall'. The main heading is 'Inside which HTML element do we put the JavaScript?'. Below the heading is a table with three rows, each representing a vote option and its count.

Option	Votes
<script>	4 votes
<javascript>	1 vote
<js>	1 vote

At the bottom of the page, there are two buttons: 'Back To Polls' and 'Vote again?'.

## Admin Login Page



Log in | Voting Admin Area

127.0.0.1:8000/admin/login?next=/admin/

The Poll Mall

Username:

praveen

Password:

...

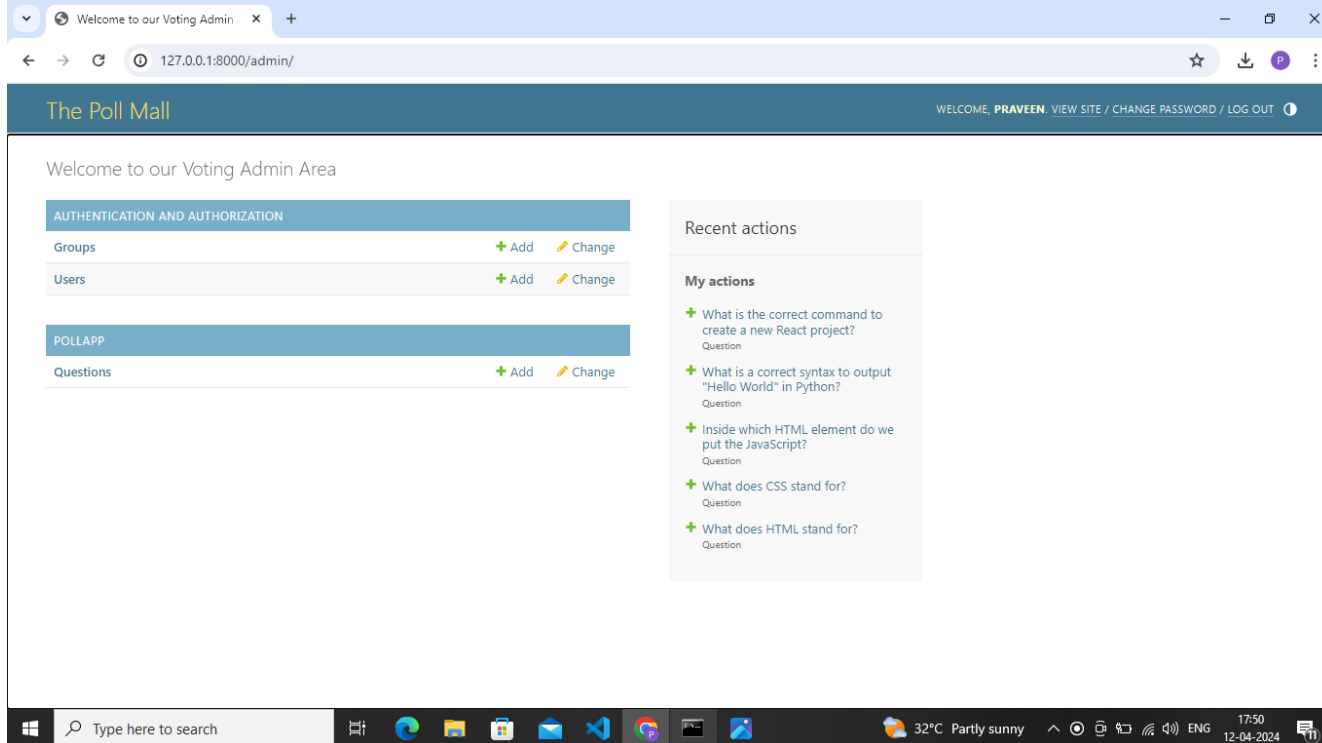
Log in

Type here to search

Earnings upcoming

17:55  
12-04-2024

## Admin Home Page



The screenshot displays the 'Admin Home Page' of 'The Poll Mall' application. The browser window shows the URL '127.0.0.1:8000/admin/'. The page header includes the site name 'The Poll Mall' and a welcome message for 'PRAVEEN' with links to 'VIEW SITE', 'CHANGE PASSWORD', and 'LOG OUT'. The main content area is titled 'Welcome to our Voting Admin Area' and is divided into two primary sections: 'AUTHENTICATION AND AUTHORIZATION' and 'POLLAPP'. The 'AUTHENTICATION AND AUTHORIZATION' section contains two rows: 'Groups' and 'Users', each with '+ Add' and 'Change' (pencil icon) buttons. The 'POLLAPP' section contains one row: 'Questions', also with '+ Add' and 'Change' buttons. On the right side, there is a 'Recent actions' section titled 'My actions' which lists five recent questions, each preceded by a green plus icon and followed by the word 'Question'.

Welcome to our Voting Admin Area

**WELCOME, PRAVEEN. [VIEW SITE](#) / [CHANGE PASSWORD](#) / [LOG OUT](#)**

**AUTHENTICATION AND AUTHORIZATION**

Groups	<a href="#">+ Add</a> <a href="#">Change</a>
Users	<a href="#">+ Add</a> <a href="#">Change</a>

**POLLAPP**

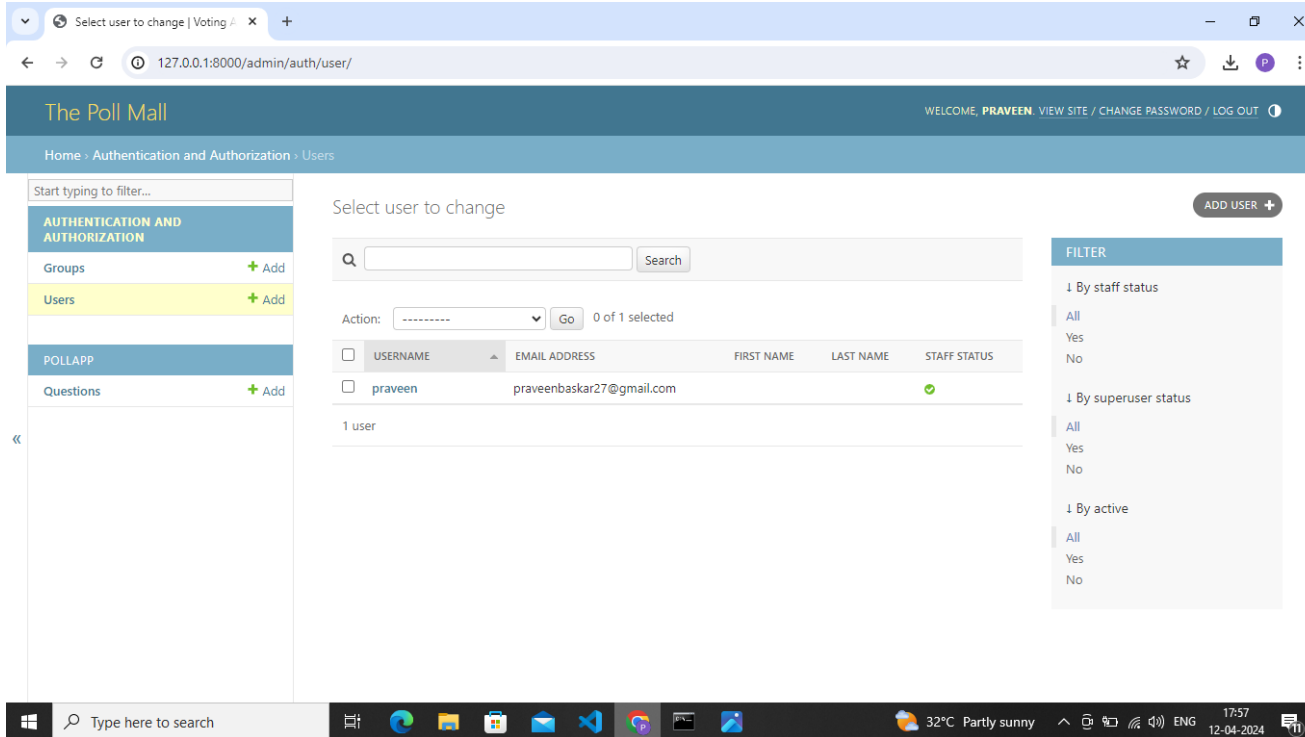
Questions	<a href="#">+ Add</a> <a href="#">Change</a>
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**Recent actions**

**My actions**

- + What is the correct command to create a new React project?  
Question
- + What is a correct syntax to output "Hello World" in Python?  
Question
- + Inside which HTML element do we put the JavaScript?  
Question
- + What does CSS stand for?  
Question
- + What does HTML stand for?  
Question

## Authentication and Authorization Page



The screenshot shows a web browser window with the address bar displaying "127.0.0.1:8000/admin/auth/user/". The page title is "The Poll Mall". The navigation bar includes "WELCOME, PRAVEEN", "VIEW SITE", "CHANGE PASSWORD", and "LOG OUT". The breadcrumb trail is "Home > Authentication and Authorization > Users".

On the left, there is a sidebar menu with the following items:

- Start typing to filter...
- AUTHENTICATION AND AUTHORIZATION
  - Groups + Add
  - Users + Add
- POLLAPP
  - Questions + Add

The main content area is titled "Select user to change". It features a search bar with a "Search" button. Below the search bar, there is an "Action:" dropdown menu and a "Go" button, indicating "0 of 1 selected".

A table displays the user information:

<input type="checkbox"/>	USERNAME	EMAIL ADDRESS	FIRST NAME	LAST NAME	STAFF STATUS
<input type="checkbox"/>	praveen	praveenbaskar27@gmail.com			✓

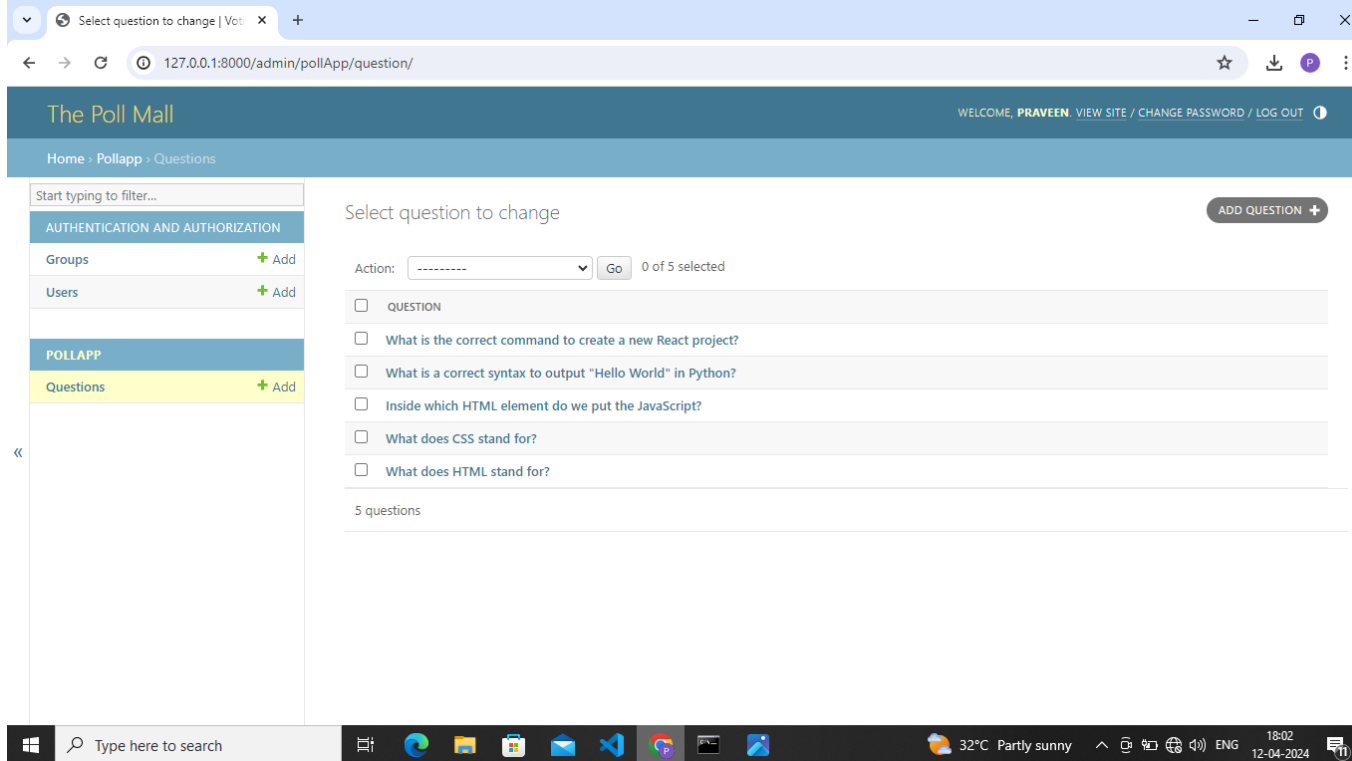
Below the table, it states "1 user".

On the right, there is a "FILTER" sidebar with the following sections:

- By staff status
  - All
  - Yes
  - No
- By superuser status
  - All
  - Yes
  - No
- By active
  - All
  - Yes
  - No

The Windows taskbar at the bottom shows the system clock as 17:57 on 12-04-2024, and the weather as 32°C Partly sunny.

## Questions Adding Section Page



The screenshot displays a web browser window with the URL `127.0.0.1:8000/admin/pollApp/question/`. The page title is "The Poll Mall" and the user is logged in as "PRAVEEN". The navigation bar includes links for "VIEW SITE", "CHANGE PASSWORD", and "LOG OUT".

The main content area is titled "Select question to change" and features a search bar with the placeholder text "Start typing to filter...". Below the search bar, there are two sections: "AUTHENTICATION AND AUTHORIZATION" and "POLLAPP". The "POLLAPP" section is expanded, showing a list of questions with checkboxes and an "Add" button next to each.

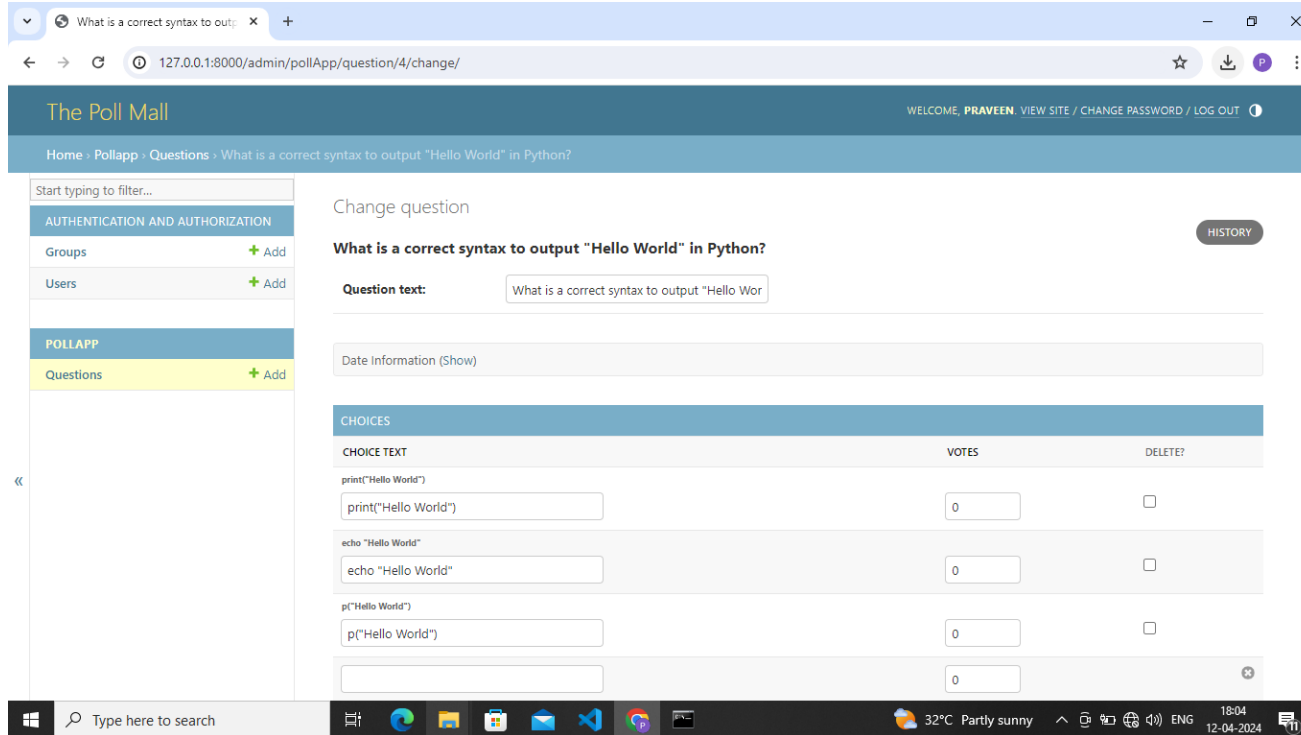
The list of questions includes:

- ☐ QUESTION
- ☐ What is the correct command to create a new React project?
- ☐ What is a correct syntax to output "Hello World" in Python?
- ☐ Inside which HTML element do we put the JavaScript?
- ☐ What does CSS stand for?
- ☐ What does HTML stand for?

At the bottom of the list, it says "5 questions".

The browser's taskbar at the bottom shows the Windows logo, a search bar, and various application icons. The system tray displays the temperature (32°C), weather (Partly sunny), and the date and time (18:02, 12-04-2024).

## Voting Details Page



The screenshot shows a web browser window with the address bar displaying '127.0.0.1:8000/admin/pollApp/question/4/change/'. The page title is 'The Poll Mall'. The user is logged in as 'PRAVEEN' and can view the site, change their password, or log out.

The main content area is titled 'Change question' and shows the current question: 'What is a correct syntax to output "Hello World" in Python?'. The question text is 'What is a correct syntax to output "Hello Wor'.

Below the question text is a section for 'CHOICES'. It contains a table with three columns: 'CHOICE TEXT', 'VOTES', and 'DELETE?'. The table lists four choices, each with a text input field for the choice text, a numeric input field for the number of votes, and a checkbox for deletion.

CHOICE TEXT	VOTES	DELETE?
<code>print("Hello World")</code>	0	<input type="checkbox"/>
<code>echo "Hello World"</code>	0	<input type="checkbox"/>
<code>p("Hello World")</code>	0	<input type="checkbox"/>
<code>p("Hello World")</code>	0	<input type="checkbox"/>

The Windows taskbar at the bottom shows the system clock as 18:04 on 12-04-2024, and the weather as 32°C Partly sunny.

## Technology Used

Front-end



Back-end





## Future Enhancements:

Future enhancements in a voting application using the Django framework, several key features and improvements can be considered based on the information from the provided sources,

**1.Asynchronous Programming:** Implementing asynchronous programming can enhance the performance of the application by allowing tasks to run concurrently, improving responsiveness and scalability.

**2.Microservices Architecture:** Adopting a microservices architecture can make the application more modular, easier to maintain, and scalable by breaking it into smaller, independent services that communicate with each other

**3.Serverless Computing:** Utilizing serverless computing can optimize resource utilization and reduce costs by enabling automatic scaling and only paying for actual usage, enhancing the application's efficiency and cost-effectiveness.

**4.Client-Side Encryption:** Enhancing security by implementing client-side encryption can protect sensitive data and ensure the confidentiality of votes, contributing to a more secure e-voting platform.

**5.Blockchain Technology:** Integrating blockchain technology can provide transparent and verifiable voting processes, ensuring the integrity of elections and promoting trust in the system

## Conclusion

To create a voting application using Django, one should have a solid understanding of Python programming, Django framework, HTML, CSS, and Bootstrap. The development process involves creating a new Django project, creating a Django app, defining models, creating views, defining templates, and creating URLs.

The application can be further enhanced with features such as real-time results, a user-friendly interface, and a secure database design. It can also include an admin panel for managing elections, candidates, and user accounts.

Overall, a voting application using the Django framework is a powerful and flexible solution for creating online voting systems that can cater to various use cases and requirements.

**Thank You!**