



NEXT GEN EMPLOYABILITY PROGRAM

Creating a future-ready workforce

Student Name :J.Mohamed Misbahudeen
Student ID:au820621104050

College Name

Arasu Engineering College

CAPSTONE PROJECT SHOWCASE

Project Title

Voting Application using Django Framework-Misbahudeen(4050,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:

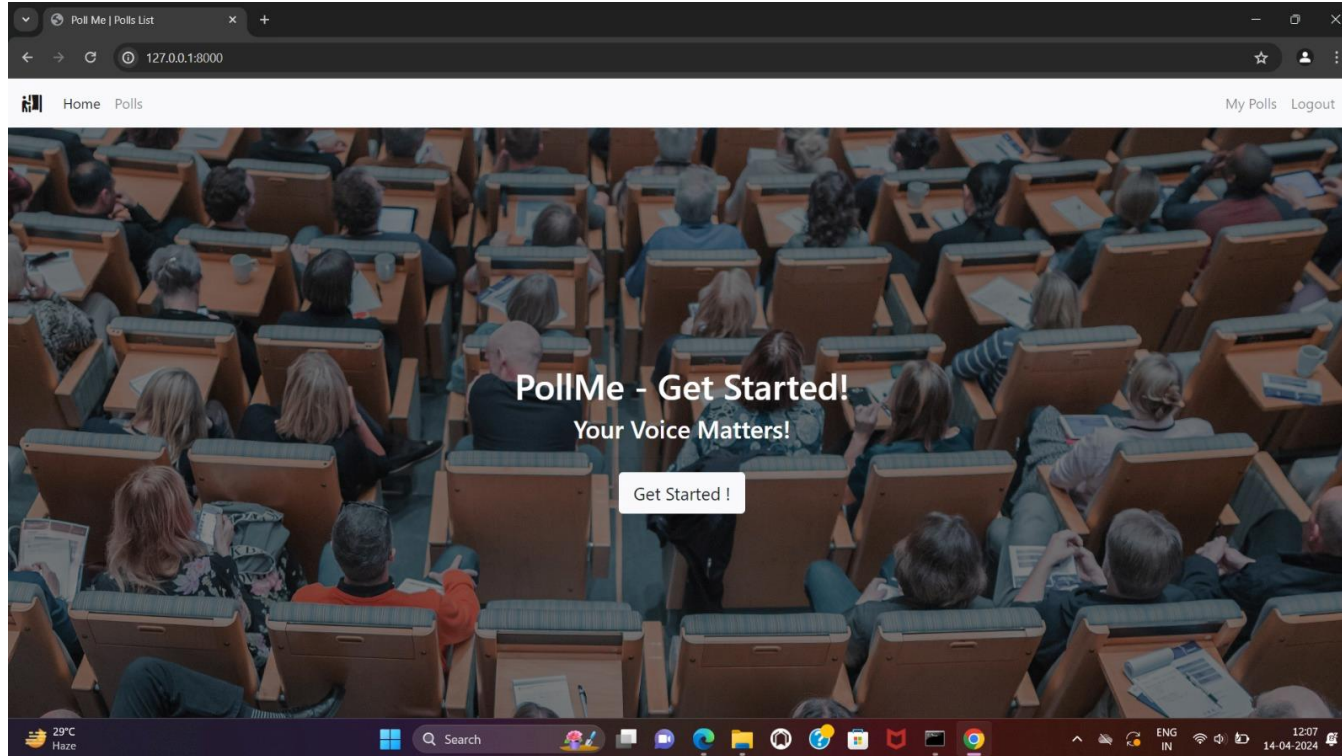
- 1.Setting up a Django Project:** Create a Django project to serve as the foundation for the voting application.
- 2.Designing the Database Schema:** Define the database structure to store user information, votes, and other relevant data.
- 3.Creating User Authentication:** Implement user authentication 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

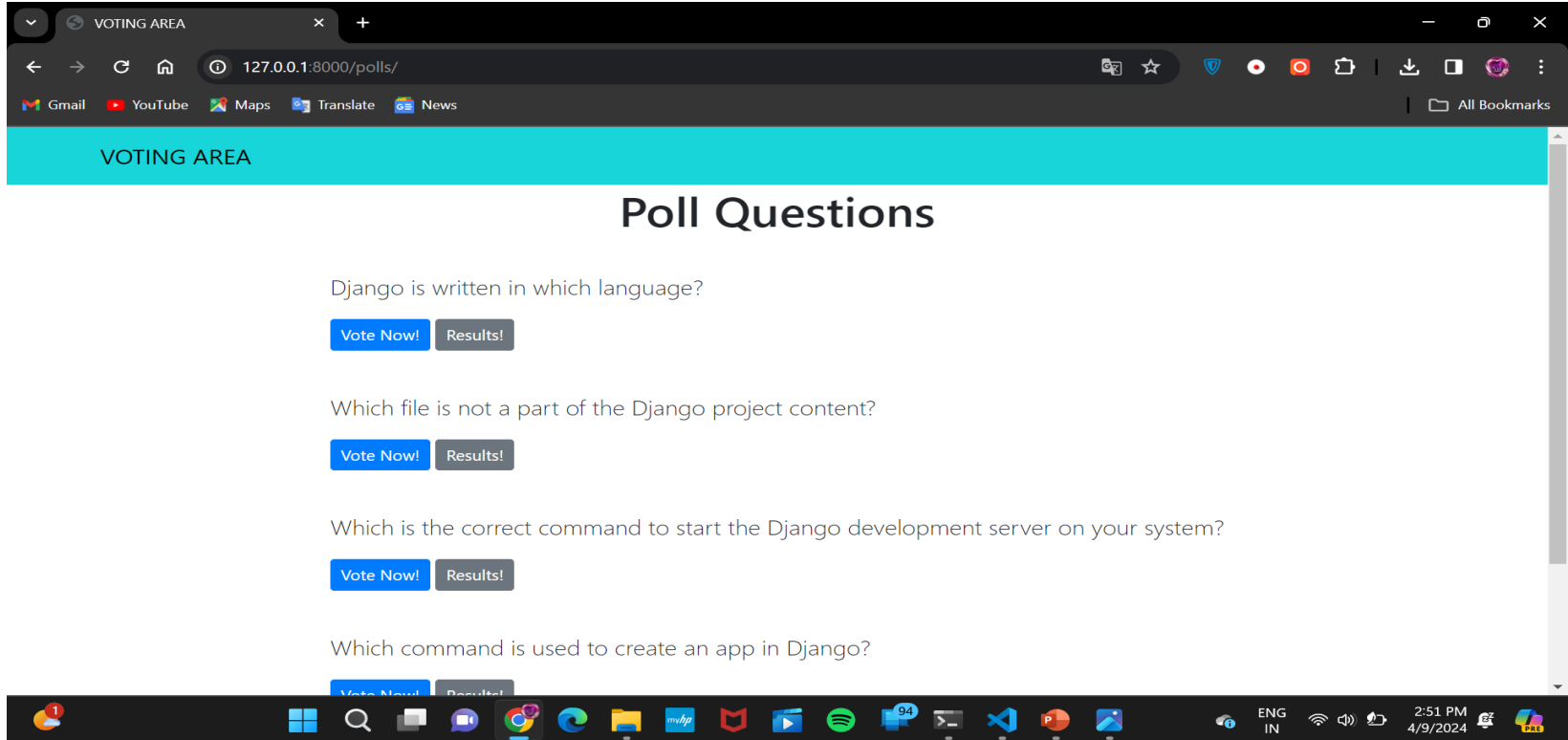
The proposed solution for a voting application using the Django framework is to create a secure and user-friendly online voting platform. The application will allow users to register, vote, and view real-time results. To build the application, the Django framework will be used as the foundation due to 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 the address bar displaying "127.0.0.1:8000/polls/". The page has a teal header with the text "VOTING AREA". Below the header, the main heading is "Poll Questions". There are four poll questions listed, each with a "Vote Now!" button and a "Results!" button.

VOTING AREA

Poll Questions

Django is written in which language?

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

Which file is not a part of the Django project content?

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

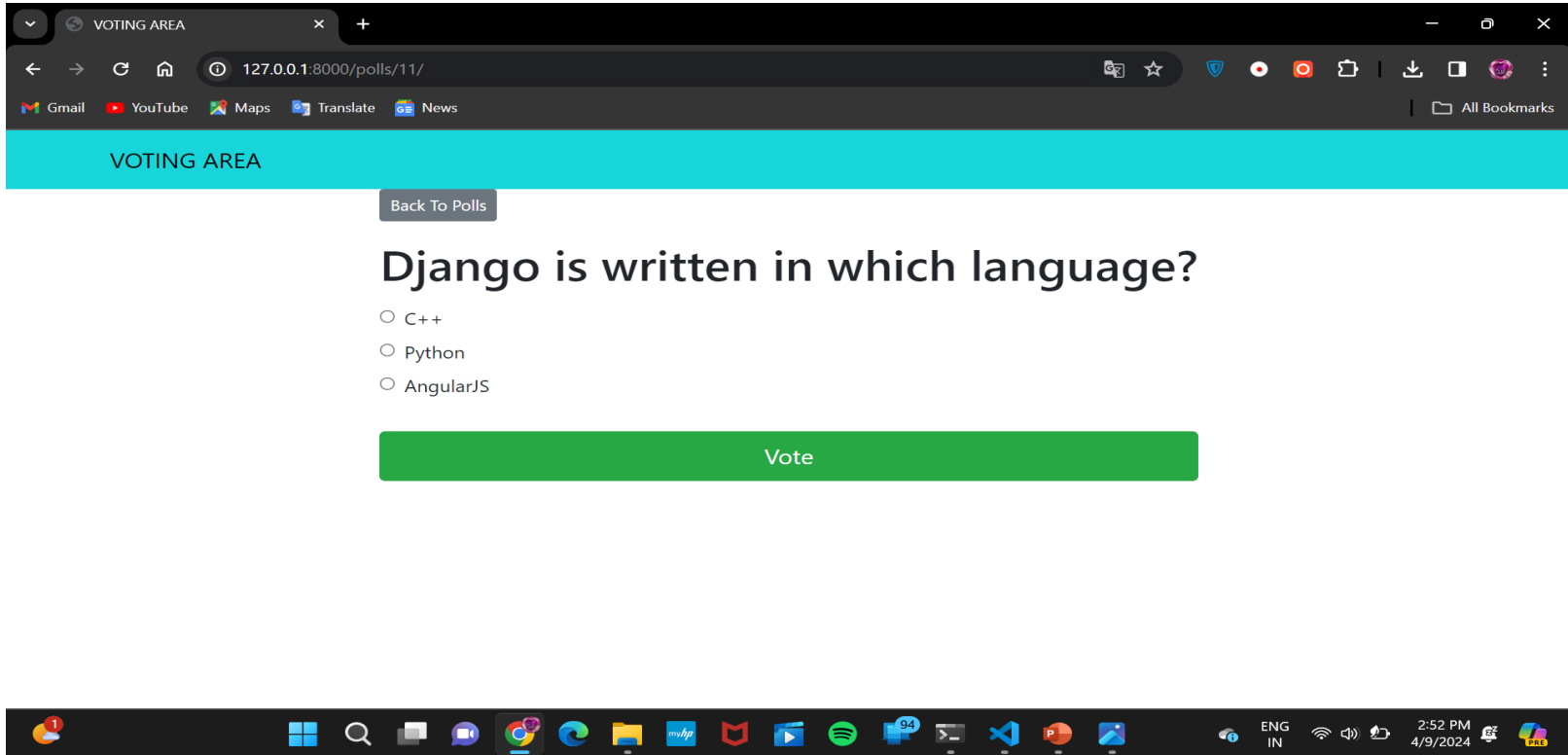
Which is the correct command to start the Django development server on your system?

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

Which command is used to create an app in Django?

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

Voting Page



The screenshot shows a web browser window with a single tab titled "VOTING AREA". The address bar displays the URL "127.0.0.1:8000/polls/11/". Below the address bar is a navigation bar with a cyan background and the text "VOTING AREA". A "Back To Polls" button is located below the navigation bar. The main content area displays the question "Django is written in which language?" followed by three radio button options: "C++", "Python", and "AngularJS". A large green "Vote" button is positioned at the bottom of the voting area.

VOTING AREA

[Back To Polls](#)

Django is written in which language?

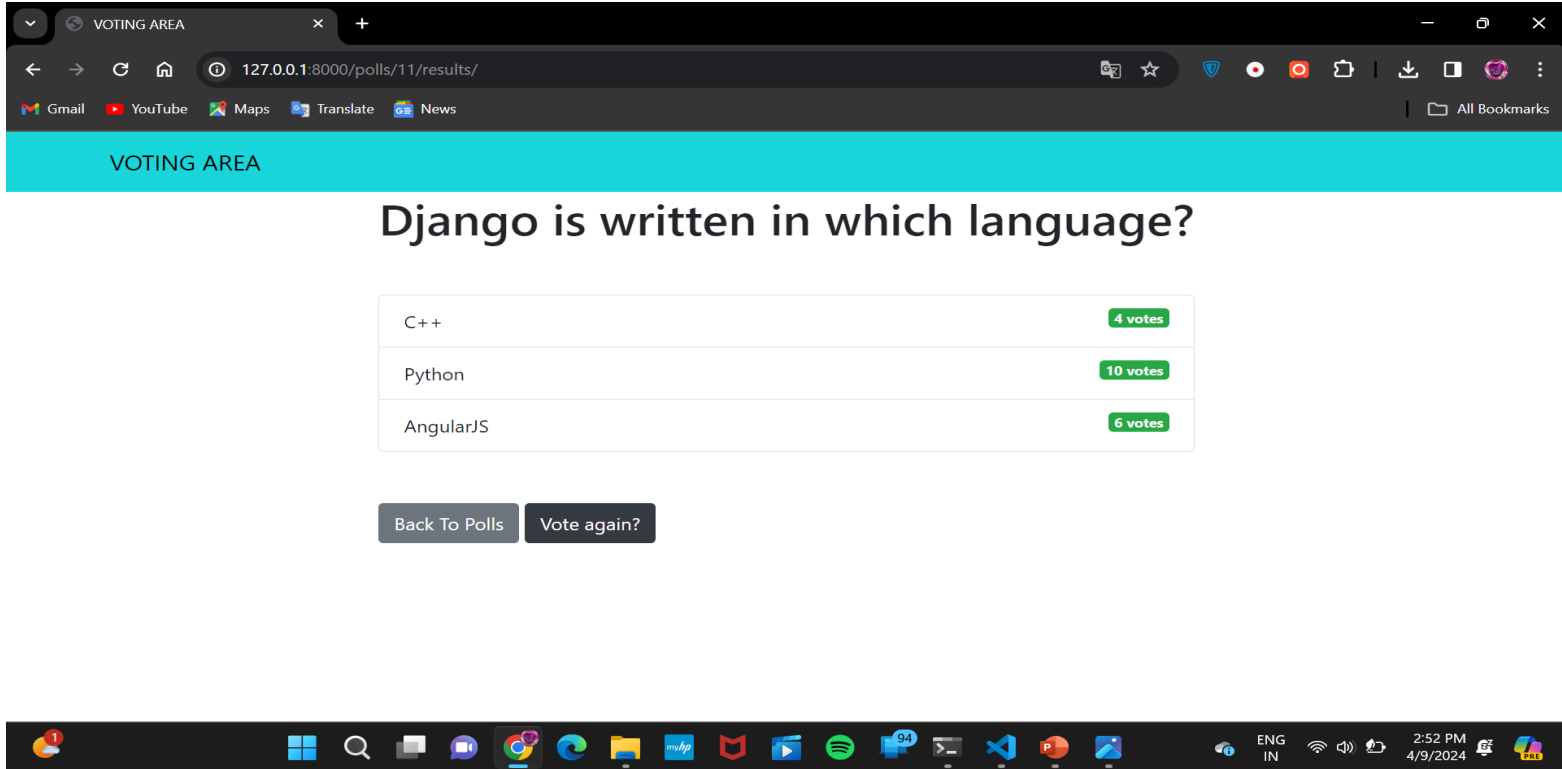
☐ C++

☐ Python

☐ AngularJS

Vote

Voting Details Page

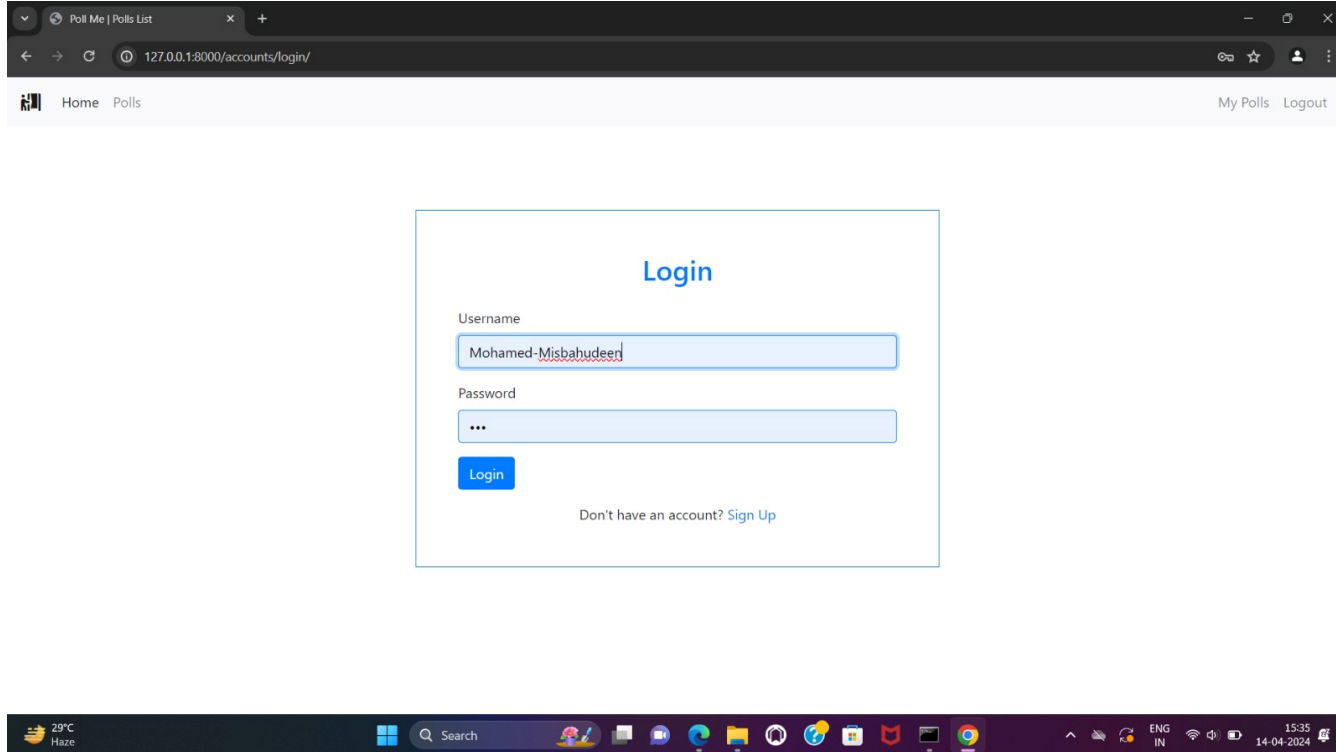


The screenshot shows a web browser window with the address bar displaying `127.0.0.1:8000/polls/11/results/`. The page has a teal header with the text "VOTING AREA". Below the header, the question "Django is written in which language?" is displayed. A table lists three options with their respective vote counts:

C++	4 votes
Python	10 votes
AngularJS	6 votes

At the bottom of the page, there are two buttons: "Back To Polls" and "Vote again?". The Windows taskbar at the bottom shows the time as 2:52 PM on 4/9/2024.

Admin Login Page



The screenshot shows a web browser window with the address bar displaying `127.0.0.1:8000/accounts/login/`. The browser's navigation bar includes links for Home and Polls, and user options for My Polls and Logout. The main content area features a login form with the title "Login". The form contains two input fields: "Username" with the text "Mohamed-Misbahudeen" and "Password" with masked characters. A blue "Login" button is positioned below the password field. At the bottom of the form, there is a link that says "Don't have an account? Sign Up". The Windows taskbar at the bottom of the screen shows the system clock at 15:35 on 14-04-2024, along with various application icons and a weather widget indicating 29°C and Haze.

127.0.0.1:8000/accounts/login/

Home Polls My Polls Logout

Login

Username

Mohamed-Misbahudeen

Password

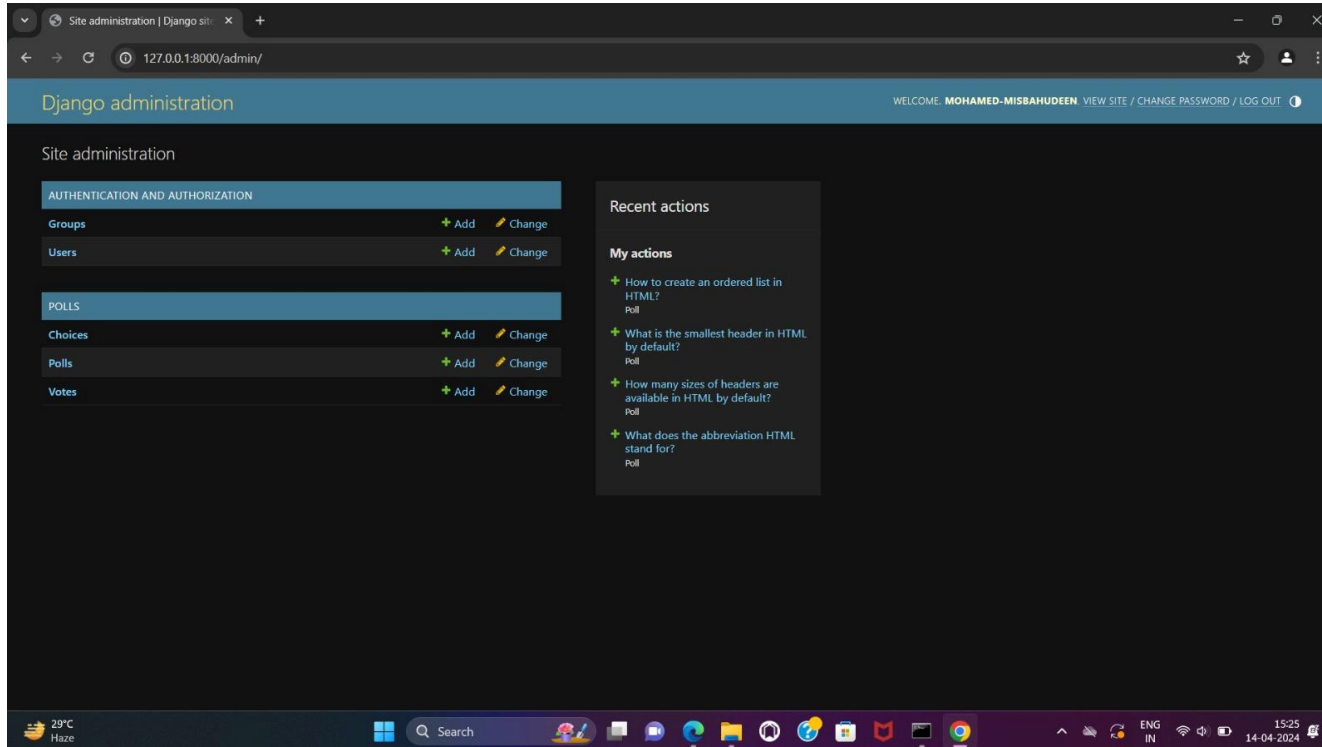
...

Login

Don't have an account? [Sign Up](#)

29°C Haze Search ENG IN 15:35 14-04-2024

Admin Home Page



The screenshot displays the Django administration interface in a web browser. The browser's address bar shows the URL `127.0.0.1:8000/admin/`. The page header includes the text "Django administration" and a welcome message for "MOHAMED-MISBAHUEEN" with links for "VIEW SITE", "CHANGE PASSWORD", and "LOG OUT".

The main content area is titled "Site administration" and is divided into two columns. The left column contains two sections: "AUTHENTICATION AND AUTHORIZATION" and "POLLS".

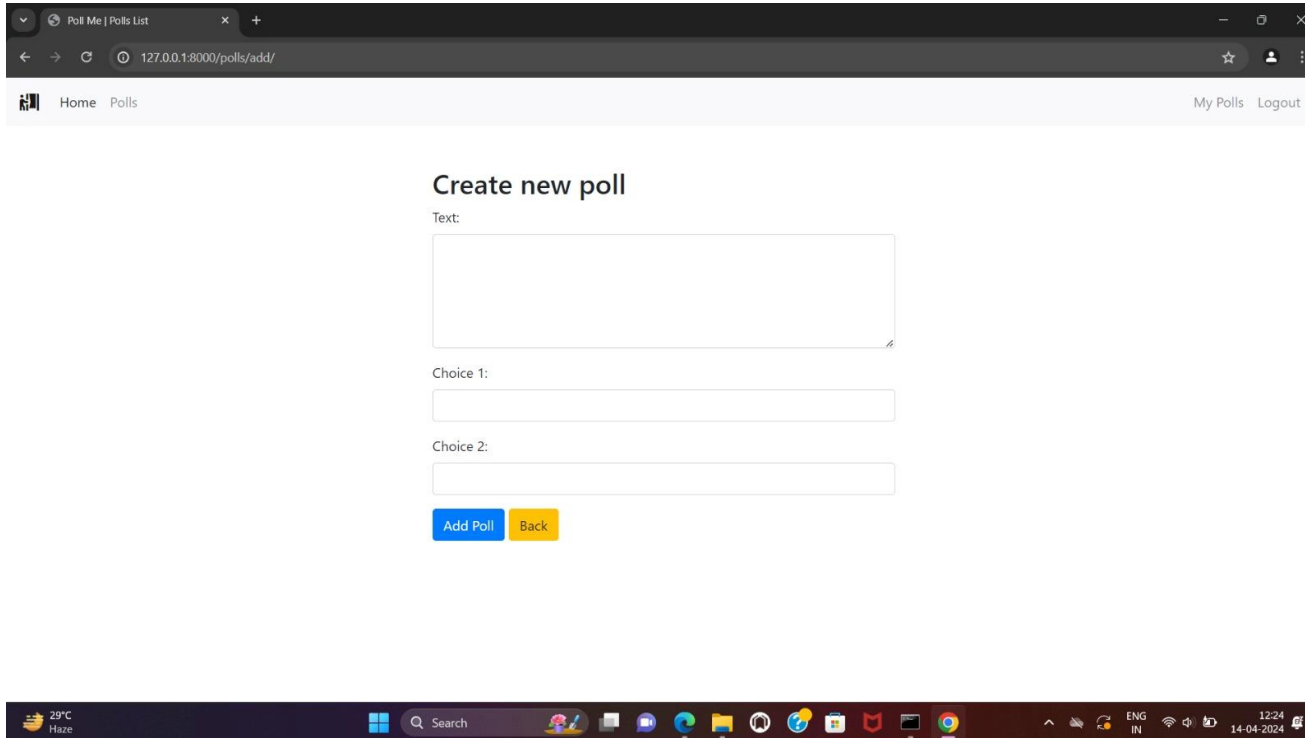
- AUTHENTICATION AND AUTHORIZATION**
 - Groups**: Includes links for "Add" and "Change".
 - Users**: Includes links for "Add" and "Change".
- POLLS**
 - Choices**: Includes links for "Add" and "Change".
 - Polls**: Includes links for "Add" and "Change".
 - Votes**: Includes links for "Add" and "Change".

The right column is titled "Recent actions" and contains a section "My actions" with a list of recent actions:

- How to create an ordered list in HTML? Poll
- What is the smallest header in HTML by default? Poll
- How many sizes of headers are available in HTML by default? Poll
- What does the abbreviation HTML stand for? Poll

The bottom of the image shows a Windows taskbar with the date and time set to 15:25 on 14-04-2024, and the weather displayed as 29°C Haze.

Authentication and Authorization Page



Poll Me | Polls List

127.0.0.1:8000/polls/add/

Home Polls My Polls Logout

Create new poll

Text:

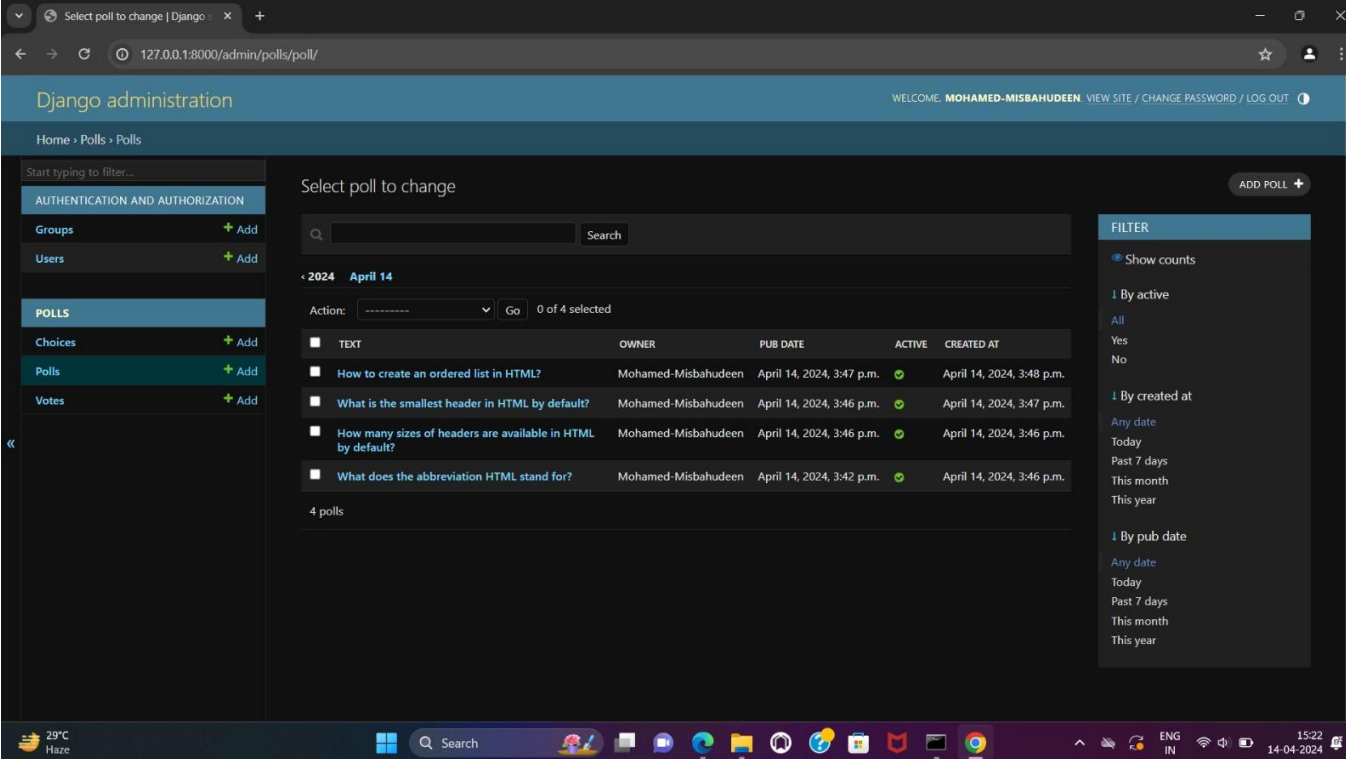
Choice 1:

Choice 2:

Add Poll Back

29°C Haze 12:24 14-04-2024

Questions Adding Section Page



Django administration

WELCOME, MOHAMED-MISBAHUDEEN VIEW SITE / CHANGE PASSWORD / LOG OUT

Home > Polls > Polls

Select poll to change

2024 April 14

Action: 0 of 4 selected

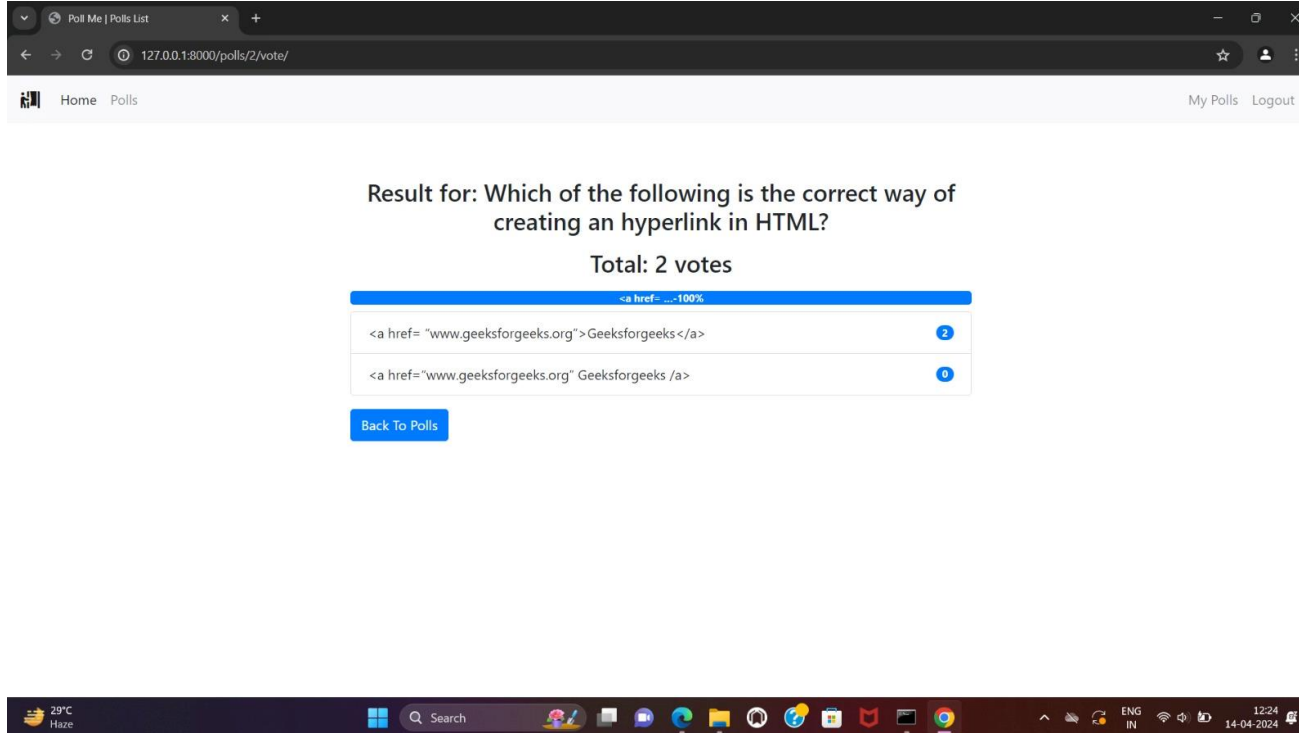
TEXT	OWNER	PUB DATE	ACTIVE	CREATED AT
<input type="checkbox"/> How to create an ordered list in HTML?	Mohamed-Misbahudeen	April 14, 2024, 3:47 p.m.	<input checked="" type="checkbox"/>	April 14, 2024, 3:48 p.m.
<input type="checkbox"/> What is the smallest header in HTML by default?	Mohamed-Misbahudeen	April 14, 2024, 3:46 p.m.	<input checked="" type="checkbox"/>	April 14, 2024, 3:47 p.m.
<input type="checkbox"/> How many sizes of headers are available in HTML by default?	Mohamed-Misbahudeen	April 14, 2024, 3:46 p.m.	<input checked="" type="checkbox"/>	April 14, 2024, 3:46 p.m.
<input type="checkbox"/> What does the abbreviation HTML stand for?	Mohamed-Misbahudeen	April 14, 2024, 3:42 p.m.	<input checked="" type="checkbox"/>	April 14, 2024, 3:46 p.m.

4 polls

FILTER

- Show counts
- By active
 - All
 - Yes
 - No
- By created at
 - Any date
 - Today
 - Past 7 days
 - This month
 - This year
- By pub date
 - Any date
 - Today
 - Past 7 days
 - This month
 - This year

Voting Details Page



The screenshot shows a web browser window with the address bar displaying "127.0.0.1:8000/polls/2/vote/". The page title is "Poll Me | Polls List". The navigation bar includes "Home" and "Polls" links, with "My Polls" and "Logout" on the right. The main content area displays the poll question: "Result for: Which of the following is the correct way of creating an hyperlink in HTML?". Below the question, it states "Total: 2 votes". A progress bar shows "<a href=...-100%". Two options are listed: "Geeksforgeeks " with 2 votes, and "" with 0 votes. A "Back To Polls" button is at the bottom. The Windows taskbar at the bottom shows the date as 14-04-2024 and time as 12:24.

Poll Me | Polls List

127.0.0.1:8000/polls/2/vote/

Home Polls My Polls Logout

Result for: Which of the following is the correct way of creating an hyperlink in HTML?

Total: 2 votes

<a href=...-100%

Geeksforgeeks 	2
	0

Back To Polls

29°C Haze 12:24 14-04-2024

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!