



NEXT GEN EMPLOYABILITY PROGRAM

Creating a future-ready workforce

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CAPSTONE PROJECT SHOWCASE

Project Title

Voting Application using Django Framework-Harish.K(4023,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.

VOTING AREA

Welcome to Voting Area!!!!

This is my first Django Project

Through this voting area extend your Knowledge

[View Available Polls!](#)

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?

Voting Page

VOTING AREA

[Back To Polls](#)

Django is written in which language?

- ☐ C++
- ☐ Python
- ☐ AngularJS

Vote

Voting Details Page

VOTING AREA

Django is written in which language?

C++	4 votes
Python	10 votes
AngularJS	6 votes

[Back To Polls](#)[Vote again?](#)

Admin Login Page

Django administration

Username:

harishk

Password:

••••••

Log in

Admin Home Page

Voting Arena

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

Welcome to our Voting Admin Area

AUTHENTICATION AND AUTHORIZATION

Groups [+ Add](#) [✎ Change](#)

Users [+ Add](#) [✎ Change](#)

VOTEAPP

Questions [+ Add](#) [✎ Change](#)

Recent actions

My actions

- [+ Django is Written in which language?](#)
Question
- [+ which city is capital of TamilNadu](#)
Question
- [✎ Which one is object oriented language?](#)
Question
- [✎ which one is best javascript framework?](#)
Question
- [✎ which one is best javascript framework?](#)
Question
- [+ which one is best javascript framework?](#)
Question
- [✎ What are the object oriented languages?](#)
Question
- [+ What are the object oriented languages?](#)
Question

Authentication and Authorization Page

Voting Arena

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

Home > Authentication and Authorization > Users

Start typing to filter...

AUTHENTICATION AND AUTHORIZATION

Groups [+ Add](#)

Users [+ Add](#)

VOTEAPP

Questions [+ Add](#)

✔ The user "harish2" was changed successfully.

Select user to change

Action: 0 of 2 selected

<input type="checkbox"/>	USERNAME	EMAIL ADDRESS	FIRST NAME	LAST NAME	STAFF STATUS
<input type="checkbox"/>	harish2	harish2@gmail.com	harish	2	✔
<input type="checkbox"/>	harishk	kharish1237@gmail.com			✔

2 users

ADD USER [+](#)

FILTER

↓ By staff status

☐ All
☐ Yes
☐ No

↓ By superuser status

☐ All
☐ Yes
☐ No

↓ By active

☐ All
☐ Yes
☐ No

Questions Adding Section Page

Voting Arena

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

[Home](#) > [Voteapp](#) > [Questions](#)

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

Select question to change

ADD QUESTION +

Action: 0 of 4 selected

- ☐ QUESTION
- ☐ Django is Written in which language?
- ☐ which city is capital of TamilNadu
- ☐ which one is best javascript framework?
- ☐ Which one is object oriented language?

4 questions

Voting Details Page

Start typing to filter...

AUTHENTICATION AND AUTHORIZATION

Groups + Add

Users + Add

POLLAPP

Questions + Add

Change question

HISTORY

Django is written in which language?

Question text:

Django is written in which language?

Date Information (Show)

CHOICES

CHOICE TEXT	VOTES	DELETE?
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C++

C++

4



Python

Python

10



AngularJS

AngularJS

6



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!