Online Voting System

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ABSTRACT:

The paper's primary goal is to offer a safe and straightforward online voting system. Voting remains a serious issue in terms of safety and security. In order to provide high performance and high security, this system deals with the design and implementation of a web-based voting system. With the planned online voting system, voters can send an OTP to a registered email address, which the user then enters to confirm their identity. As all users must check in using their email address and password and then select their preferred candidate to cast their vote after the verification procedure is complete, the voting method is easier to handle and decreases the number of fake votes.

Keywords:

SQLITE, JAVASCRIPT, PYTHON, CSS, BOOTSTRAP, and DJANGO.

1. INTRODUCTION

An online voting system is a form of online voting. In this approach, voters who have been given admin permission can cast their ballots online without visiting a polling place. We offer an online voting system that offers features like accuracy, convenience, flexibility, privacy, and verifiability to remove all these drawbacks. Several voting procedures, such as ballot paper and EVM machines, are used for voting purposes. However, all these procedures require more time and more labor. Our online voting system gives users a platform where they may sign up to vote by remote vote casting. Our voting technology allows any voter to exercise their right to vote from any location.[2]

1.1 Problem Background:

Online voting has been the subject of a lot of literature development recently. Online voting has been the subject of research in recent years, but there are still attempts being made to strengthen its security. Security breaches caused by the use of insecure Internet have lately been reported. So, addressing security flaws like denial-of-service assaults is the key concern right now.

1.2 Problem Statement:

Voting methods conducted online are quickly replacing those conducted on paper. The counting of votes, the use of phony voters, the engagement of an outside source, as well as other issues like time consumption, financial constraints, and budget issues, among others, all contribute to the rigging of the traditional voting process. To ensure that votes are securely submitted by voters while keeping the time, verification, budget, and overall security of the system, the goal of this proposal is to research how to model an authentic, dependable, and upright E-voting system.[2]

1.3 Research Objective:

By offering all necessary security measures, the major goal of this study is to forward the development of the online voting platform. The goal of this research is to simplify, expedite, and safeguard the voting process. Systems for voting online eliminate the fraudulent voting that can happen with conventional voting procedures.[2]

1.4 Scope of Study:

As everyone is aware, a lot of firms hold elections for jobs like "Group leader, Project leader, and Employee of the Month," as well as for smaller adjustments to the working environment. The ability to vote online would be quite advantageous in that situation. Voting is accessible to everyone, everywhere. As college societies like CSI, Trinity, and others hold elections for positions like president, vice president, and other management positions for students, the online voting system can be used in cases like these effectively because it can be tailored to the needs of the client for any type of elections.[1]

2. LITERATURE REVIEW

2.1 Background:

The user can utilize this technology to cast a ballot in an election. To cast a ballot, each voter must sign in and select the candidate(s) they wish to support. On LAN, testing, development, and research are carried out. On the other hand, online voting software has long been a subject of investigation, including recent reports of incorrect implementations. These issues must be handled for the general public to vote in a safe and appropriate setting. Any user may exercise their right to vote using online voting software from any location. The online voting program includes

a) user information (name, ID, and password) and

b) user information.

c) Voting by users in a database.

d) the total number of votes added together.

A special user id is assigned to my administration for the result panel Information about the user is stored in a database as part of the system's many operational works proposed. verification of the information the user has provided. incorrect information is deleted. The administration receives every bit of information.[2]

2.2 Product Perspective:

An election is being conducted with the product. Web technologies were used in the creation of this system. Despite being a standalone product. A Django and SQLite server is needed.

2.3 Product Functions:

The server back-end of our system handles user authentication and preserving pertinent information. The server's user interface allows users to create the election on their behalf. Users must first log in with their ID and password to access the election module, where they can easily and comfortably cast their votes. After their responses are saved, the results are then shown.[2]

2.4 Modules of our System:

By registering on the online voting platform, a voter can cast their ballot through the online voting site. All user data is entered into the database so that the administrator can confirm the user. The database contains separate tables for users, candidates, results, and admin. Each voter must submit all of his or her basic details, including name, gender, state, and email address.

The website's welcome page, which is the first page, may be found here. All of the page choices, including Home, Polling Dates, Register, Login, about us, contact us, and FAQs, are present.[3]

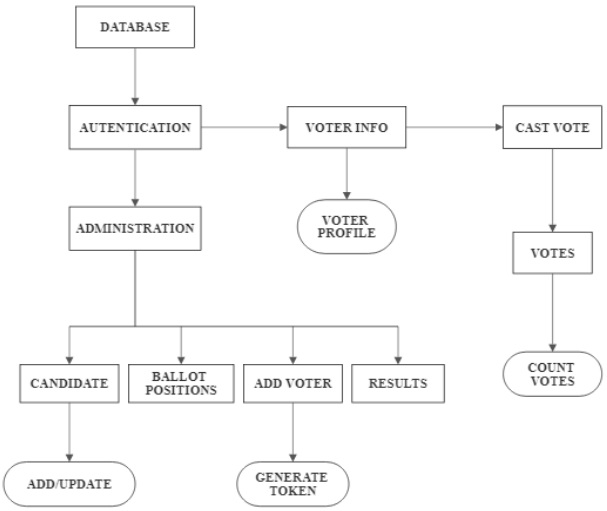


Fig 1: Flowchart

2.5 Home:

It is the home page of our portal and includes all of the feature options. The registration page, login page, admin section, and about us page are all linked from this page. This page also provides a quick explanation of our system's operation, giving the user a general understanding of the entire system.[3]

Fig 2: Home

2.6 Registration:

This is the page where voters can register themselves to vote. Through a registration page, users must submit the information requested by the administrator. The relevant database contains all the information that has been entered into the portal. The admin has the power to accept suitable users, but he also has the option to decline their registration and give a justification.[3]

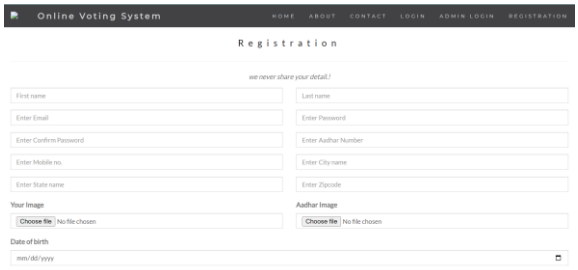


Fig 3: Registration

2.7 User Login:

Their information is saved to the database and provided to the admin after they register on the portal. With the unique **USERNAME** and **PASSWORD** created upon registration, the user can access the portal. In the event that the user forgets their password, they can choose the **FORGOT-PASSWORD** option.[3]

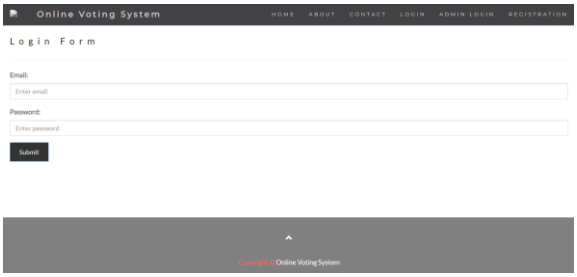
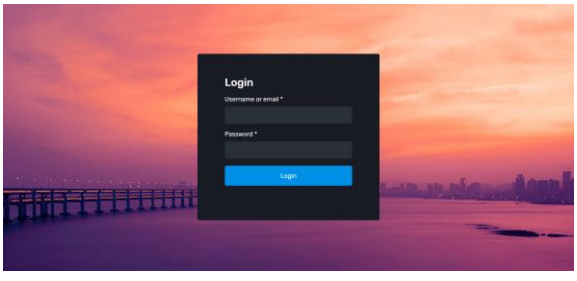
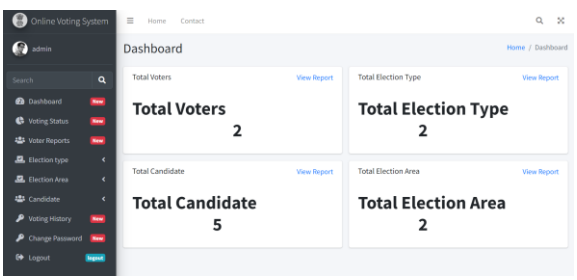


Fig 4: Login

2.8Admin Panel:

From this point, the administrator can log in to his account and control every aspect of the voting process, including adding new elections, creating user IDs, confirming user identities, producing results, and much more. By authenticating the user, he has the right to create an ID for that person.[3]





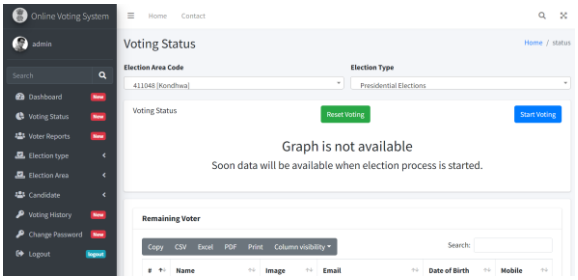


Fig 5: Admin Panel

2.9 Election:

Only users who have been validated by the administrator have access to this module, which provides a list of all elections that are currently taking place. Users can cast their ballots through this module by choosing a candidate for a particular election.[9]

Fig 6: Election panel

2.10 Result:

The user has the right to view the results of all completed elections, which are provided by this module. After the election is successfully completed, the admin generates all of the results.[9]

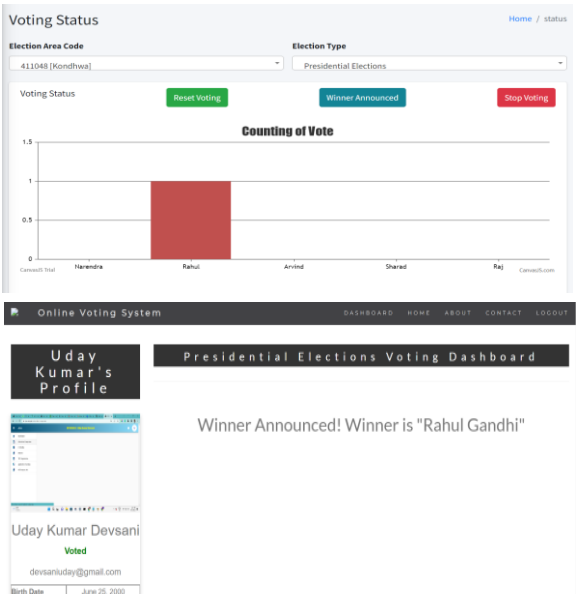


Fig 7: Result Panel

2.11 E-mail id Verification:

In order to cast his vote for candidates during an election , the user or voter can use this module to validate his e-mail address and generate all the results.[5]

Fig 8: OTP

3. Technology used:

We used the following technologies to build this online voting portal:

1. Frontend: HTML, CSS, and Bootstrap.
2. Back end: JavaScript and PHP.
3. SQLite, a database
4. Server: DJANGO and PYTHON.

4. Conclusion:

Our online portal gives a voter a chance to cast his vote via the internet without going to the voting booth. Our portal provides a special. This system gives fast access, more security levels, high flexibility, and efficiency. It also eliminates the chances of a fake person casting a vote or bogus voting. It also reduces manpower and unwanted human errors. It provides quick results of elections that are completely accurate. Our system focuses on reducing time and paperwork. Hence the online voting system makes the voting process fast and gives security to the votes.[1]

VI. REFERENCES

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