

ONLINE VOTING SYSTEM

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ABSTRACT

With rapid growth in technologies the old voting methods can change to advanced voting methods. Online voting software is a modern solution that can efficiently and securely facilitate the voting process for various groups and organizations. The use of such software eliminates the need for physical polling stations, as voters can cast their ballots from anywhere with an internet connection. The benefits of using online voting software are many; it increases accessibility, saves time and resources, ensures accuracy and transparency, and supports a more democratic decision-making process. Eligibility verification and accurate voter information are essential components of a successful online voting platform. While several countries have already implemented online voting software, this approach still faces challenges and limitations that must be addressed before universal adoption. In the following sections, we will delve further into the various types of electronic voting methods and examine successful global examples of online voting. We will also discuss current trends and future developments in online voting software provide a comparison between online and traditional voting methods.

KEYWORDS: Django , Python, DBSqlite3, Bootstrap, Webauth, Charts.js, HTML, JS, CSS.

INTRODUCTION

India has democratic government. As now all Indian citizen become a part of the growing digital India .They have a digital ID that is Aadhar card. Voting schemes have evolved from counting hands in early days to systems that include paper, punch card, electronic voting machine. An electronic voting system which is used nowadays provide some characteristic different from the traditional voting technique, and also it provides improved features of voting system over traditional voting system such as accuracy, convenience, flexibility, privacy, verifiability and mobility. But Electronic voting systems suffers from various drawbacks such as time consuming, consumes large volume of paper work, no direct role for the higher officials, damage of machines due to lack of attention, mass update doesn't allow users to update and edit many item simultaneously etc. These drawbacks can overcome by Online Voting System. This is a voting system by which any voter can use his/her voting rights from anywhere in the country. Voter can cast their votes from anywhere in the country without visiting to voting booths, in highly secured way. That makes voting a fearless of violence and that increases the percentage of voting.

"ONLINE VOTING SYSTEM" is an online voting technique. It is based on the other online services like "ONLINE RESERVATION SYSTEM". In this system people who have citizenship of INDIA and whose age is above 18 year of any sex can give his/her vote online without going to any polling booth. There is a DATABASE which is maintained by the ELECTION COMMISSION OF INDIA in which all the names of voter with complete information is stored.

PURPOSE

We are developing an on-line voting system by taking advantage of the centralized database with a web interface. The main concept of this project is to build a website, which should be able to allow people to cast their vote by online.

Time saving, working load reduced, information available at time and it provide security for the data. During the election, the election commission of India has introduced a new method of polling by online voting system (OVS). The election commission will maintain this website.

LITERATURE SURVEY

RESEARCH PAPER

The author in “Online Voting System” uses fingerprint and uses Aadhaar card for authentication. This system is very efficient and ads extra security to avoid occurrence of fraud. In paper “Online voting system” we collected most the part of our system from this paper login id and password is used for authentication purpose and admin panel controls and look after each and every aspect from registration to the result creation.

In paper “Online voting system using Cloud” UI consists of login name and some special characters for user login purpose. Register voter has to use his/her email id for creation for unique id which is essential at time of login.

The paper ” Secure Authentication for Online Voting System” presents non traceability and integrity of the votes, smart card has been used to avoid multiple votes casted by users, biometric is being used for authenticating voters. The author has introduced smart card for biometric identification and voter id card to be used at the time of casting vote. They are using smart card and voter id card at the time of election which is not feasible as anything can happen to those cards thus relying completely upon cards innot a good idea. And the use of various cards makes the system costly now each and every voter need to have these additional cards. Also it may take reasonable amount of time to generate so many cards. All voting system generated priory though have met various features, which a voting system may consists but the main problem one could find in these system is that little “online” word, despite all techniques they have used to make system robust there is always a chance of malpractice when your system is online.

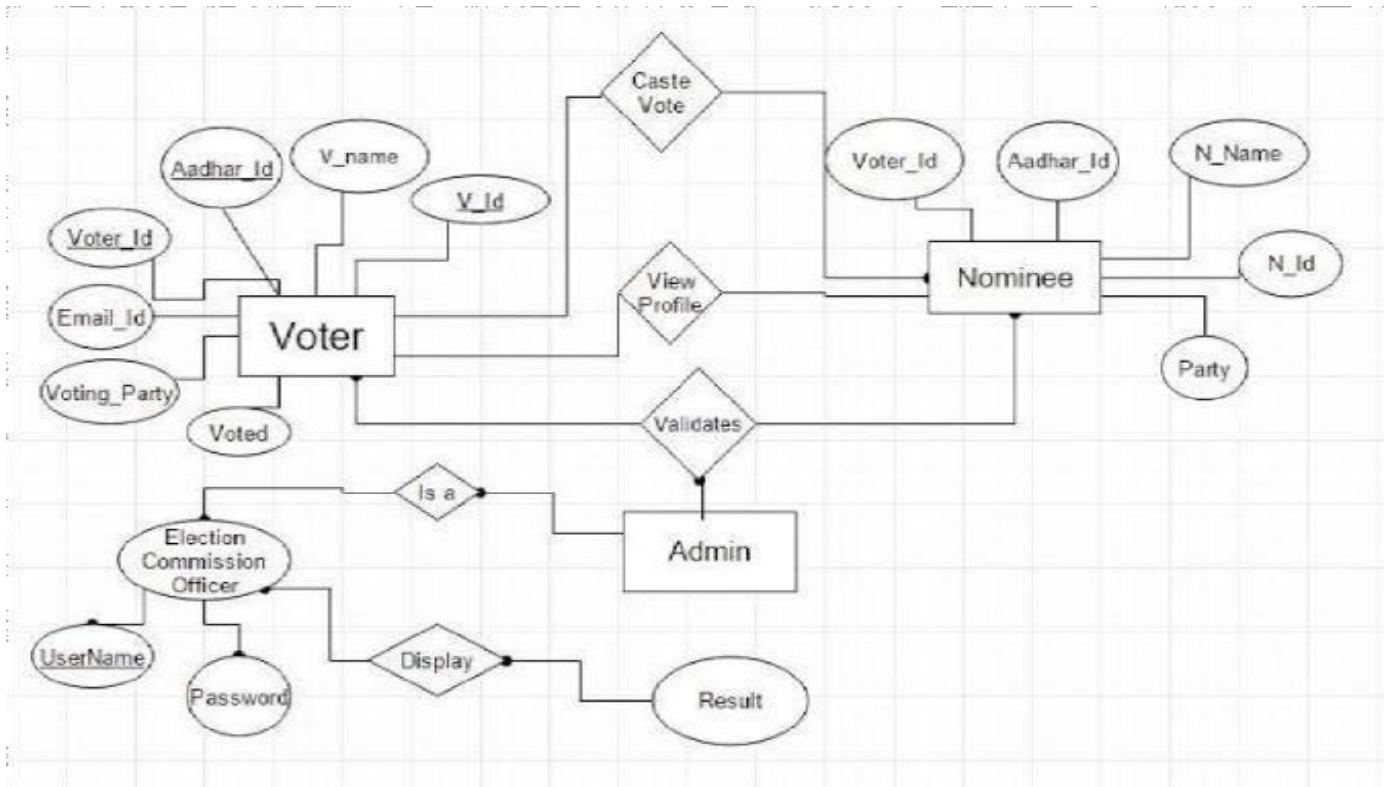
METHODOLOGY

Online Voting System can be implemented, using login which requires a fingerprint scan and the name of the candidate.

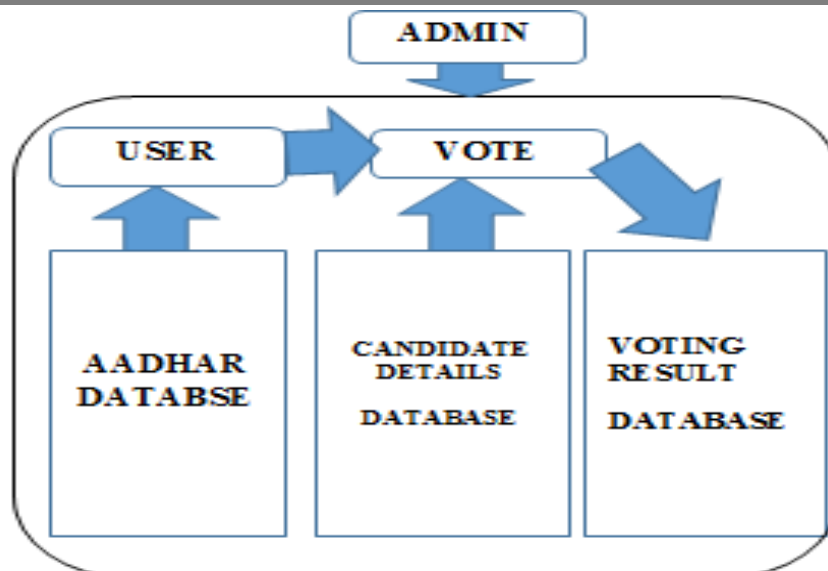
This software is being developed for convenient use of voters. it can be used for various elections, ranging from local/state government to national assembly polls User just have to register, login and vote his/her favorable candidate.

- Voter’s information in database.
- Voter’s Names with ID and password.
- Voter’s vote in a database.
- Calculation of total number of votes

- Each information is sent to ELECTION COMMISSION OF INDIA.



SYSTEM FLOWCHART



SECURE AUTHENTICATION AND VERIFICATION

Online voting systems rely on secure authentication and verification techniques to ensure only eligible voters can cast their vote. In India, voters can use their voter identification number to cast their vote through the online module of the project.

The online voting app created by the Election Commission Authority only allows verified voters to vote. The

Estonian I-voting system provides an even more secure authentication method by using the PIN of the national ID card for authentication. Any electronic voting system must ensure that a voter's identity is securely verified before allowing them to cast their ballot. This helps to prevent voter fraud and ensures that the election results are fair and accurate.

CONCLUSION

Online Voting Systems have many advantages over the traditional voting system. Some of these advantages are less cost, faster generation results, easy accessibility, accuracy, and low risk of human and mechanical errors. It is very difficult to develop online voting system which can allow security and privacy on the high level. Future development focused to design a system which can be easy to use and will provide security and privacy of votes on acceptable level by proper authentication and processing section.. It is easy to use and it is less time consuming. It is very easy to debug.

Online Voting System is a highly innovative and technological solution to many of the challenges faced in traditional voting systems. It not only simplifies voting process but also saves time and resources. With secure authentication and verification measures in place, the system offers transparency and accountability in the electoral process. However, the implementation of the online voting system still raises concerns regarding security, privacy, and accessibility. It is important to address these issues before making the system available to the public. The online voting system has tremendous potential to revolutionize the electoral process and ensure greater participation and representation for all.

FUTURE SCOPE

While the online voting system offers many advantages over traditional paper-based voting, there are still some concerns and challenges to consider. Ensuring equal access and participation, protecting voter privacy and preventing fraud and hacking are some of the key issues that need to be addressed. In conclusion, the online voting system has enormous potential to modernize the election process in India.

It is important that the results are easily accessible and that the system is implementation and future development will require a multi stakeholder approach that includes government, transparent to maintain trust in the electoral process. Despite these challenges and concerns, addressing these issues and implementing a civil society, and the private sector. With the right strategies and investments, the online voting system could become a reliable and secure tool for democratic participation and decision-making.

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