E-VOTING SYSTEM

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Abstract - The Project is developed for the threat free and user oriented Online Voting System. The Online Voting system is made for the people of the country residing around the world and wants to vote for their representative. The election can be conducted in two ways the paper ballot election and the automated ballot elections. The automated ballot elections are called the electronic voting. Online voting system is an online voting technique. In this system, authorized voters can give his\her vote online without going to any physical polling station. There is a database which is maintained in which all the names of voters with complete information is stored. In online voting system a voter can use his\her voting right online without any difficulty. He\She has to be registered first for him/her to vote. Registration is mainly done by the system administrator for security reasons. The system Administrator registers the voters on a special site of the system visited by him/her only by simply filling a registration form to register voter. Citizens seeking registration are expected to contact the system administrator to submit their details and get their registration done.

Index Terms – Security, Communication, Web application, Ease of work, More employment for students.

I. INTRODUCTION

. E -Voting System is mainly aimed at providing a most secured and user friendly online voting system. "E-Voting System" is an online voting technique. In this system a voter can use his\her voting right online without any difficulty. He\She has to be registered first for him/her to vote. Registration is mainly done by the system administrator for security reasons. The system Administrator registers the voters on a special site of the system visited by him only by simply filling a registration form to register voter. Citizens seeking registration are expected to contact the system administrator to submit their details. After the validity of them being citizens of India has been confirmed by the system administrator by comparing their details submitted with those in existing databases such as those as the Registrar of Persons, the citizen is then registered as a voter. After registration, the voter is assigned a secret Voter ID with which he/she can use to log into the system and enjoy services provided by the system such as voting. If invalid/wrong details are submitted, then the citizen is not registered to vote. We are dedicated to make voting fast and easy.

II.LITERATURE SURVEY:

The Online Voting Platform offers clever tickets, brilliant agenda highlights, vote counting , classification and revealing. These capacities are programmed and don't should be doled out to faculty house. Furthermore, it enables heads to make decides on polls with the goal that voters can't cast invalid votes, nor do they should be checked while tallying. The Online Voting Platform offers the least demanding and most helpful technique for directors and voters alike. For directors, the way toward setting up a ticket and leading a decision is basic and sensible . There are several issues with the traditional voting method. For example, the production of ballot paper is costly, voting and counting take a long time and are prone to mistakes, among many other factors. As a result of these factors, the democratic countries are heading toward the trend of electronic voting. Electronic voting systems are thought to give efficient solutions to the inadequacies of traditional voting procedures. The contribution of this research is to apply cost and time analysis on the purposed e-voting system implemented in Paksitan's electoral system. The core purpose of this study will be the predicting and demsytifing weather e-voting by traditional methods is cost and time efficient or not. In the future, we aim to propose a method to increase the accessibility and maintainability of smart contract development by analyzing the difference between Ethereum's smart contract programming language—Solidity—and the existing development languages by researching the conversion algorithms among them. In any voting, it is critical to ensure the confidentiality of the vote content, the credibility of the vote results, and the transparency of the voting process. Such confidentiality, credibility, and transparency factors require a high level of security in the voting system. This program adopted highly secure block chain technology to develop an online voting system with minimum location constraints to guarantee credibility in the voting process and its results among voters. E-voting can be an efficient and cost effective way for conducting a voting procedure and for attracting specific groups of people (e.g. young or disabled electors) to participate . The term e-voting (electronic voting) is used hereby to denote a voting process, which enables voters to cast a secure and secret ballot over a network. The first aim of the paper is to discuss whether an e-voting scheme could meet the legal requirements, as these are laid down in the modern information societies .Here face recognition concept is used to identify the exact person whose image is stored in the database. Three levels of verification were used for the voters in our propose system. Many of the above methods provides protection, security and transparency in the process of voting. This paper reveals several approaches used for smart voting system. In this paper, various methods were used to develop a secure system which will give accurate results.

2.1 PLATFORM OVERVIEW

web is a comprehensive open source platform designed for web sites. It is championed by Google and owned by Open Handset Alliance. The goal of the alliance is to "accelerate innovation in mobile and offer consumers a richer, less expensive, and better mobile experience."Web is the vehicle to do so.

2.2 FUNDAMENTALS

Web applications are written in Javaprogramming language. They are not only executed by using the standard Java Virtual Machine (JVM).[6]Google has created a custom VM called Dalvik which isresponsible for converting and executing Java byte code.All custom Java classes must be converted into a Dalvikcompatible instruction set before being executed into an

Web operating system. Dalvik VM takes the generated Java class files and it combines them into one or more Dalvik Executable (.dex) files. It reuses duplicateinformation from multiple class files, effectively reducing the space requirement created to support the nature of Web operating systems.

2.3 DEVELOPMENT

Writing web applications is simplified with the use of web application frameworks. These frameworks facilitate rapid application development by allowing a development team to focus on the parts of their application which are unique to their goals without having to resolve common development issues such as user management. Many of the frameworks in use are open-source software. In addition, there is potential for the development of applications on Internet operatingsystems, although currently there are not many viable platforms that fit this model.

2.4 APPLICATION

An application is a program that runs on our Computer under the operating system of that computer.It is more or less like one creating using C or C++ .Java'sability to create Applets makes it important. An Applet I san application, designed to be transmitted over the Internet and executed by a Java-compatible web browser.An applet I actually a tiny Java program, dynamically downloaded across the network, just like an image. But the difference is, it is an intelligent program, not just a media file. It can be react to the user input and dynamically change.

III. EXISTING SYSTEM

Paper-based voting systems originated as a system where votes are cast and counted by hand, using paper ballots. With the advent of electronic tabulation came systems where paper cards or sheets could be marked by hand, but counted electronically. These systems included punched card voting, mark sense and later digital pen voting systems. Most recently, these systems can include an Electronic Ballot Marker (EBM), that allow voters to make their selections using an electronic input device. A direct-recording

electronic voting machine records votes by means of a ballot display provided with mechanical or electro- optical components that can be activated by the voter (typically buttons or a touchscreen); that processes data with computer software; and that records voting data and ballot images in memory components. After the election it produces a tabulation of the voting data stored in a removable memory component and as printed copy. The system may also provide a means for transmitting individual ballots or vote totals to a central location for consolidating and reporting results from precinctsat the central location. These systems use a precinct count method that tabulates ballots atthe polling place. They typically tabulate ballots as they are cast and print the results after the close of polling.

3.1 LIMITATIONS

Security concerns: Online voting systems can be vulnerable to cyberattacks, hacking, and other forms of interference
Lack of transparency: It can be difficult to ensure transparency and accountability in an online voting system, especially if voters are not able to physically observe the process.
Technical difficulties: Technical issues, such as server downtime or glitches in the software, can impact thereliability and usability of an online voting system

IV.ARCHITECTURE

The architecture of an online voting system can vary depending on the specific implementation and requirements of the system. However, here is a general overview of the components that may be included in an online voting system architecture:

User interface: This is the component that voters interact with to cast their vote. It may include a web application or mobile app that allows voters to access the voting system and submit their vote.

Authentication and security: To ensure the integrity of the voting process, online voting systems must have strong authentication and security measures in place. This may include multi-factor authentication, encryption, and other security protocols to prevent unauthorized access and ensure the confidentiality of voting data.

Database and storage: Voting data must be securely stored and protected to prevent tampering and ensure accurate results. The online voting system may include a database for storing voter information and voting records.

Tabulation and aggregation: Once votes are cast, they must be tabulated and aggregated to produce the final results. This may involve algorithms and software designed to count and verify votes, and to produce accurate and timely results.

Administration and monitoring: The online voting system must be monitored and administered to ensure that it is functioning properly and to address any issues that may arise. This may involve a team of administrators responsible for maintaining the system and ensuring that it complies with legal and regulatory requirements

ARCHITECTURE FLOW

V.RESULTANALYSIS

The analysis of an online voting system will depend on thespecific context and objectives of the voting process.

However, here are some general considerations that may be relevant: Participation: One important measure is the

level of participation in the voting process. This can be assessed by looking at the number of eligible voters who cast

a vote, as well as the proportion of the total electorate who participated. Comparing the participation rates to previous elections or other benchmarks can help gauge the success of the online voting system in increasing voter turnout.

Security: Ensuring the security and integrity of the online voting system is crucial to maintaining trust in the process. The system should be designed to prevent unauthorized access, tampering, or manipulation of votes. The analysis should include a thorough review of the security measures in place, such as encryption, firewalls, and access controls, as well as any reported incidents of security breaches or vulnerabilities.

Accessibility: Online voting can increase accessibility for voters who may have difficulty voting in person due to disabilities, distance, or other factors. The analysis should assess whether the online voting system is accessible to all eligible voters, regardless of their physical abilities ortechnical expertise.

Reliability: The online voting system should be reliable and ensure that all votes are accurately recorded and counted. The analysis should include a review of the voting process to ensure that it is transparent and follows established procedures, and that any reported errors or discrepancies are investigated and resolved promptly.
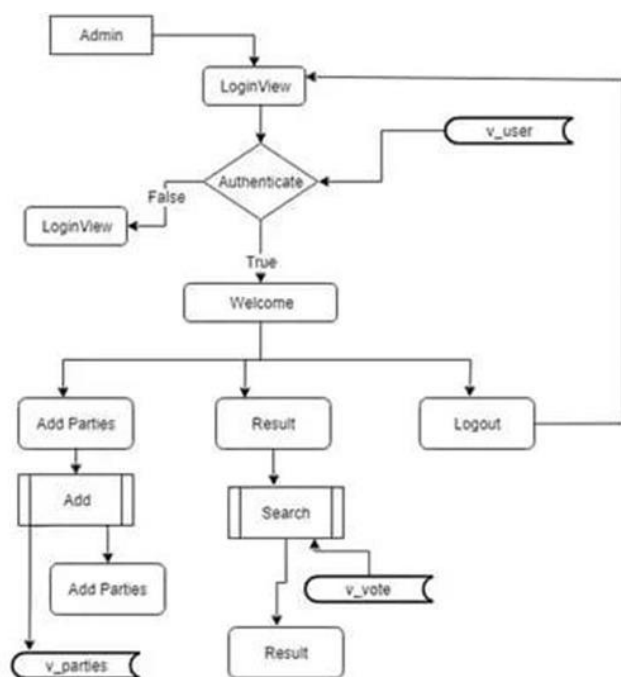
User experience: The online voting system should be easy to use and understand for voters, with clear instructions and user-friendly interfaces. The analysis should include feedback fromvoters on their experience with the system, including any challenges or difficulties they encountered.

Cost-effectiveness: The cost of implementing and maintaining an online voting system can be significant, and the analysis should evaluate the cost-effectiveness of the system in comparison to other voting methods. This may include a cost- benefit analysis to determine whether the benefits of increased participation and accessibility outweigh the costs of implementing and maintaining the system.

Overall, the analysis of an online voting system should assess its effectiveness in achieving the desired objectives of the voting process, while ensuring the security, accessibility, reliability, user experience, and cost-effectiveness of the system.

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VI. CONCLUSION

Generally voting has to be perform by user by going to the voting center. Many users like army person or NRI cannot come to the voting place. o Therefore we have to implement

REFERENCES

1. Govindaraj, R., & Kumaresan, P. (2020, February). Online voting system using cloud. In 2020 International Conference on Emerging Trends in Information Technology and Engineering (ic-ETITE) (pp. 1-4). IEEE.
2. Jafar, U., Aziz, M. J. A., & Shukur, Z. (2021). Blockchain for electronic voting system—review and open research challenges. Sensors, 21(17), 5874. 3. Cheema, M. A., Ashraf, N., Aftab, A., Qureshi, H. K., Kazim, M., & Azar, A. T. (2020, November). Machine Learning with Blockchain for Secure Evoting System. In 2020 First International Conference of Smart Systems and Emerging Technologies (SMARTTECH) (pp. 177-182). IEEE. 4. Vo-Cao-Thuy, L., Cao-Minh, K., Dang-Le-Bao, C., & Nguyen, T. A. (2019, March). Votereum: An ethereum-based e-voting system. In 2019 IEEE-RIVF International Conference on Computing and Communication Technologies (RIVF) (pp. 1-6). IEEE. 5.Kalaiyarasi, G., Balaji, K., Narmadha, T., & Naveen, V. (2021, March). Evoting system in smart phone using mobile application. In 2020 6th International Conference on Advanced Computing and Communication Systems (ICACCS) (pp. 1466-1469). IEEE. 6.Prasad, R. M., Bojja, P., & Nakirekanti, M. (2019). Aadhar based electronic voting machine using arduino. International Journal of Computer Applications, 145(12), 39-42. 7.Arshad, W. Analysis of E-voting Machine on the Basis of Time and Cost. 8.Agarwal, H., & Pandey, G. N. (2022, May). A secure e-election system. In 71 2014 International Conference on Information Science & Applications (ICISA) (pp. 1-4). IEEE. 9.Ahn, B. (2022). Implementation and Early Adoption of an Ethereum- Based Electronic Voting System for the Prevention of Fraudulent Voting. Sustainability, 14(5), 2917. 10.Adekunle, S. E. (2022). A Review of Electronic Voting Systems: Strategy for a Novel. International Journal of Information Engineering & Electronic Business, 12(1). 11.Jafar, U., Aziz, M. J. A., & Shukur, Z. (2021). Blockchain for electronic voting system—review and open research challenges. Sensors, 21(17), 5874. 12.Kajal, B., Vala, B., & Patel, W. (2021, May). A Review of Online Voting System Security based on Cryptography. In Proceedings of the International Conference on Smart Data Intelligence (ICSMDI 2021). 13.Divya, K., & Usha, K. (2022, February). Blockvoting: An Online Voting System Using Block Chain. In 2022 International Conference on Innovative Trends in Information Technology (ICITIIT) (pp. 1-7). IEEE. 14.Rura, L., Issac, B., & Haldar, M. K. (2019). Online voting system based on image steganography and visual.