

# Online Voting System

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**Abstract** - The Online Voting System is a web application made specifically for voters. Once we make it available online, anyone can access it. The search engine is open to anyone who is qualified to cast a ballot. Voters can use a streamlined interface to cast their ballots from anywhere in the world. To cast a ballot, a person must first register by giving their complete information. The primary goal of this study is to offer the essential security levels for the creation of an online voting platform. The project's goals include streamlining, accelerating, and protecting the voting process. Voting fraud is not possible because to online voting technology, which replace traditional voting procedures. This concept, which is based on an online voting system, might therefore be used for conducting securely.

**Key Words:** Online Voting, PHP, XAMPP, Election, Voter-ID

## 1. INTRODUCTION

Democracy is an important topic in the majority of modern societies. One of the key procedures in a democracy is the selection of representatives. Inactive citizens, fraud attempts, etc. are only a few of the various disturbances that this incredibly delicate procedure encounters. The nation of India is democratic. All Indian people have an Aadhar card, which serves as their digital ID, as they are all a part of the developing digital India. Due to the fact that it establishes each Indian's digital identity, the Aadhar card can be utilized for online voting. From early hand-counting systems to ones that employ paper, punch cards, and electronic voting machines, voting procedures have developed. Electronic voting systems are used today and have some qualities that set them apart from traditional voting techniques as well as better features, such as accuracy, convenience, flexibility, privacy, verifiability, and mobility. Electronic voting methods can have several drawbacks, though, such as the need for a lot of time and paper, the absence of a direct role for higher officials, the possibility of machine damage due to carelessness, the inability to update and edit many items at once with mass updates, etc. These issues can be solved using the online voting system. Each voter can exercise their right to vote using this voting technology from any location in the country. Without physically visiting a polling station, voters can securely cast their ballots from anywhere in the country. As a result, more people vote, and voting becomes courageous in the face of violence. By collecting your group's input in a methodical and reliable fashion, online voting tools

and online election voting systems assist you in making crucial decisions. These choices are frequently made once a year, either during a gathering (like your organization's AGM) or at a specific time of the year. Or you may conduct regular surveys inside your organization. It's a smart idea to elect your leadership via an online voting method.

## 2. LITERATURE SURVEY

This mechanism can be used by a user to vote in an election. Before voting for the candidates they have chosen, each voter must sign in. Testing, development, and research are done on the LAN. On the other hand, research towards online voting software has been ongoing, and there have even been recent reports of incorrect implementations. In order for the general people to vote in a secure and acceptable environment, these problems must be resolved.

Any user may utilize online voting software to exercise their right to vote from any location. It was important to research the present computerized voting systems or voting machines operating in various countries in order to provide an online election system. Australia and the United States are two developed nations that have already embraced an online voting system.

A formal decision-making procedure called an election is used by a population or community to select a person to hold a political position. Since the 17th century, elections have been the norm for contemporary representative democracies. Elections are conducted by both public and private entities, including the government, as well as by private and business organizations, for instance, to choose members for a company's Board of Directors, professional club leadership, and even voluntary associations.

Types of Voting Systems:

1. Paper Ballot Voting :- The conventional voting process that has been utilized throughout history is the paper-based approach. In India, Nigeria and other nations around the world, it is also the norm for elections to be conducted. For this type the person should be available at the booth with his voter id.

2. Electronic Voting :- The traditional method of voting that has been practiced throughout history is the paper-based voting system. Additionally, it is the norm in Nigeria and other nations throughout the globe for elections to be

conducted. This is since E-voting systems are more vulnerable than traditional voting systems due to the nature of digital processing of election data, which can be easily manipulated, potentially resulting in widespread fraud and corruption.

About our project:-The product is an election conducting tool with a user interface design. This system is developed using php. Though product is stand-alone, it requires a XAMPP server. XAMPP server is easy to install and it is efficient to use .XAMPP is available to download for free from the internet .

How Project Functions:- Our system has a server back-end that handles user authentication and preserving pertinent information. The user interface on the server's end allows users to create the election on their behalf. Users must first log in with their ID and password before they can access the election module, where they can vote with convenience and comfort. After they respond, their choice will be saved, and the outcome will then be shown.

### 3.EXISTING SYSTEM

The current systems are not computer-based, also known as web-based systems, nor are they connected to the World Wide Web. As a result, the populace experienced several issues and developed a phobia of thievery and vote-rigging. The commission must worry about how things move from election day through result announcement day. Some of the issues with offline voting are listed below. Even now, they are handled by hand. If a voter is not physically present in their district, they are ineligible to cast a ballot. It is more expensive to employ electronic voting machines. Some of the voters' biometric information has already been registered in the system to provide confidentiality, non-traceability, and security.

Drawbacks of Existing System:

Some of the problems with the present manual voting system include the following, among others:

- a) Expensive and time-consuming: It takes time and money to obtain the data and insert it into the database. Printing data collection forms, setting up registration booths with employees, publicising the dates established for the registration process, and educating voters on the value of registration are just a few examples of the time and money invested in these activities.
- b) Inaccurate data entry: Because people make mistakes, it is highly improbable that data will ever be entered accurately.
- c) Registration forms going missing after being filled out with voter information happen periodically, even when

persons are of voting age and want to exercise their right to vote. Many people remain unregistered since they are frequently hard to find.

d) The method requires too much paper work, which is difficult to store because it gets heavier as the population rises.

### 4.PROPOSED SYSTEM

This online voting system, which the voter can use to log in and execute his voting rights, will be used to handle the voter's information. All of the voter's data is saved in full in a database that is kept up to date by the INDIA ELECTION COMMISSION. At the time of registration, voters must supply their full name, age, Aadhar card number, mobile number, email address, and finger prints. The information will also be checked by the administrator. When requesting to vote, the voter must enter his Aadhar ID. After the voter has been confirmed, they are free to vote for any of the listed candidates.

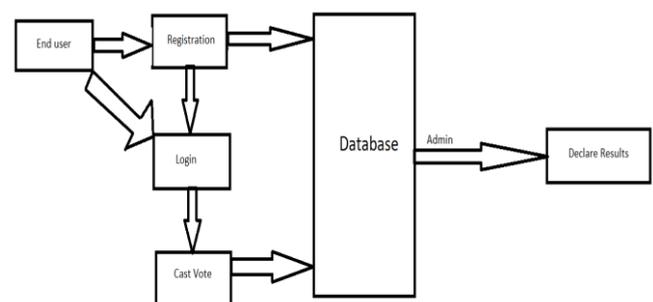
Merits:

- Information is much easier to access.
- Secure and Safe
- Saving time
- Utilizing a centralized database.

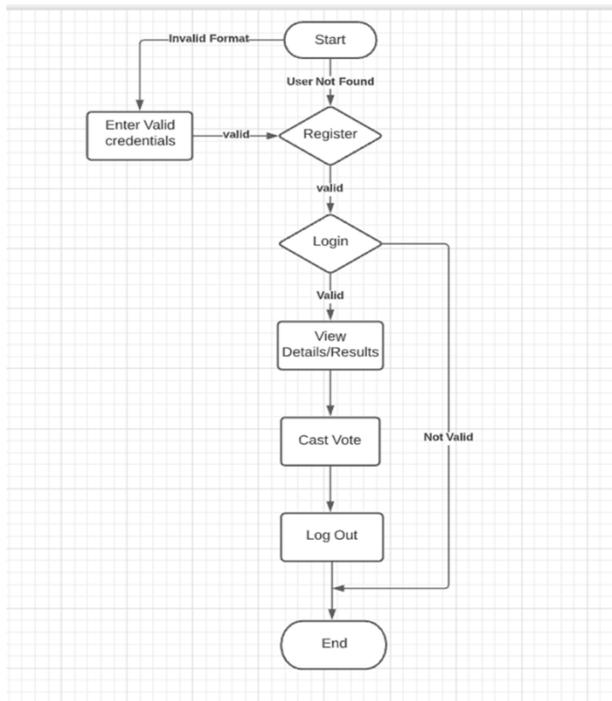
### 5.DESIGN

The process of defining a system's architecture, parts, modules, interfaces, and data in order to meet predetermined requirements is known as systems design. It may be considered the application of systems theory to the process of product development. The most popular techniques for designing computer systems are increasingly those that focus on object-oriented analysis and design.

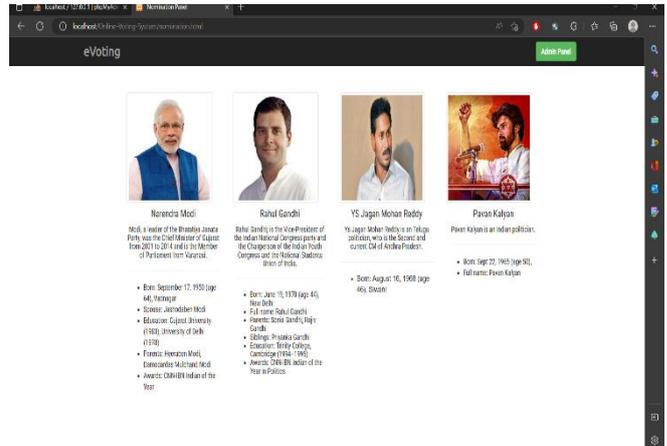
Architectural design



Flow Chart of the System



Example:



5) By authenticating himself or herself, the Admin can view the results and declare the election's outcome. A password change by the administrator is permitted for security reasons. This provides a user-friendly and visually pleasing display of the votes each contender earned. It details the percentage of votes each candidate obtained. But the results won't be known until beyond the election's deadline.

6. IMPLEMENTATION

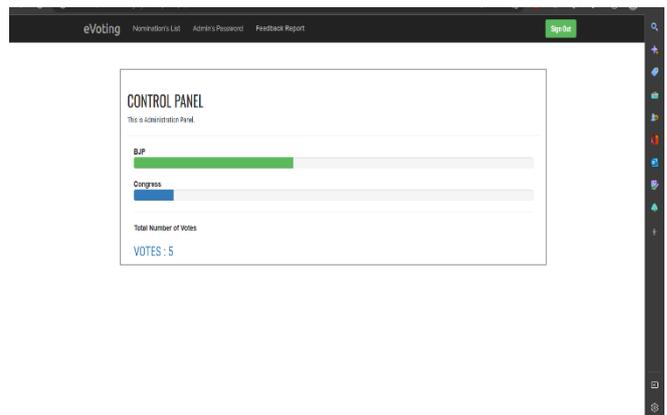
Any project's implementation phase is a real showcase for the turning points that determine whether it will succeed or fail. The installation and operationalization of the system or system modifications in a production environment is referred to as the implementation step. After the system has been tried out and approved by the user, the phase is started. Until the system is working in production in compliance with the specified user requirements, this phase is ongoing.

1) The user initially logs in using their username and password, if they already have an account. If not, they must register by giving the admin their full name, state, voter ID, and other information via the portal before being given permission to create a password.

2)When he logs in with his credentials he will be directed to home page. He can see the features , About and can be able to give feedback.

3)In the home page there "cast your vote" button where he can cast his vote of his/her choice by entering your voter id and other details.(If the voter id is invalid it shows an error)

4)In this application we can also see the details of nominee's that you can vote for.



7.SYSTEM REQUIREMENTS

7.1 Software Requirements:

Operating System: Microsoft Windows XP.

Front-End: HTML,CSS

Back-End: ORACLE 10g, PHP,XAMMP

Web-Server: Apache-Tomcat 6.0.32

Platform: Visual Studio Code

7.2Hardware Requirements:

Processor: Intel P-IV based system

RAM: Min. 512 M

## 8. FUTURE SCOPE

It is impossible to create a system that meets every user requirement. As the system is used, user needs continue to change. Future improvements to this system could include things like:

- Because it is built on object-oriented design, any additional adjustments would be simple to implement.
- Using developing technology, security can be enhanced based on upcoming security concerns.
- Administrator-validated module for job postings.
- Future election systems could include a "Live Result Update" function.

## 9. CONCLUSION

The voting mechanism we suggest is a great deal safer and more effective than the current one. With this technique, delays in results and vote tampering can be readily avoided. The implementation of two-factor authentication, which makes voter verification simpler and more accurate, is the most significant feature of our solution. For the same reason, each time a user registers, he or she is required to enter their voter ID, making it simpler to verify both voters and candidates. The planned online method is anticipated to improve the current electoral system's transparency and dependability. By implementing the Future Enhancements listed above, the application can be enhanced even more.

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