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# Online Voting System Using Java and SQL

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**Abstract:** *An online voting system is being developed that is both threats free and user-friendly. The online voting system is intended for people living in different places around the world to vote for their representatives. We have the option of having an election with paper ballots or an automated ballot election here in our world. The automated ballot elections have become the norm in recent years. Electronic voting is also currently used. The online voting system has evolved to a point that it can replace the online polling system with accurate and direct voting. A user logs in for this online voting process by providing their first name, last name, email address, password, and thumb (because these things are all unique to them). In this system, every user has just one vote and if they use their votes repeatedly, it means their votes will be considered invalid. We can reduce time and money by using this online voting system and it is very secure, efficient and safe.*

**Keywords:** *java, SQL Database, JavaScript, Wamp server*

## I. INTRODUCTION

In the research project we are focusing on an online voting system using PHP and SQL, which allows us to reduce voting time and ensures voting, is secure as opposed to an offline voting system. Users can log in with their e-mail address and passwords along with their first and last name for this voting system

Outlines of the voting System:

- 1) Indian citizens from all over the country can use the online voting system for security purpose.
- 2) A database of the user name, password and voter id number of the voters.
- 3) Id card of student identification for security purpose.
- 4) The total number of votes casting is calculated in data base.
- 5) Voters verify the profile of candidate those who stand in election process.

### A. Problem Background

Many studies have been conducted on online voting in the recent years. Researchers have been researching online voting for many years, but current efforts to develop real-world solutions are just beginning to pose several new challenges. Recent reports have mentioned the use of insecure internet, implementations of incorrectly implemented security measures, and the resulting breach of security. To create public trust in online voting, these challenges and concerns must be addressed.

### B. Problem Statement

Easy to use, attractive and simple are the features of online voting. These features reduce manual work and make it easier to handle large amounts of information. While this system has many advantages, there are also a couple of drawbacks. One of them is the risk of software failure, insecure access to the internet, and having to be knowledgeable about internet usage.

### C. Scope of Study

In order to register a voter in the voting site, the user needs an ID and password, and the details are saved into a database. It aims to provide the primary security for the voting system. This is a modern technology in voting system. Users gain a greater understanding of the internet, which is extremely important for today's generation.

- 1) *Internet:* Online facilities are very convenient for users since they can be accessed online. People in India can vote virtually at any time.
- 2) *Email:* If a user enters false information, the Election Commission can send the error report via e-mail.
- 3) *SMS:* Users who are not connected to the internet or do not possess an e-mail account can receive the error notification via SMS.

## II. EXISTING SYSTEM

Voters have to physically visit booths in order to cast vote for a candidate, so there is loss of time, and voters need to manually register into a voter list, as well as vote counting is manual. A voter has to fill out all the information manually. A voter has to be present in his/her constituency to cast a vote. Electronic voting machines are used, which extends the time. Former Government voting systems have been paper-based, where voters merely pick up ballot sheets from electoral officials, mark off the names of the candidates they want to vote for, and then merely hand them back to the election officials after voting.

Existing voting systems include:

- 1) Paper voting
- 2) Electronic voting machines with direct recording
- 3) Punch cards.

### A. Improvement in Existing System

In the current election system, voters can participate in online voting, but the government of India holds multiple general elections. So we are implementing the system to allow voters to choose which election to participate in and to submit their vote region/ward by region. As a result of the study of the present system we observed that it lacks state-and-region-specific voting facilities. This makes it difficult to vote because there are no restrictions, so voters can vote for candidates who don't belong to their area. The proposed system proposes that voters are only allowed to cast their votes for candidates belonging to their respective region/ward. We will display only those candidates from the voter's ward on the voting station. This will also facilitate the conduct of smaller elections, such as Gram Panchayat Elections and the Nagar Sava Elections. We are making our voting systems as easy to use as we can.

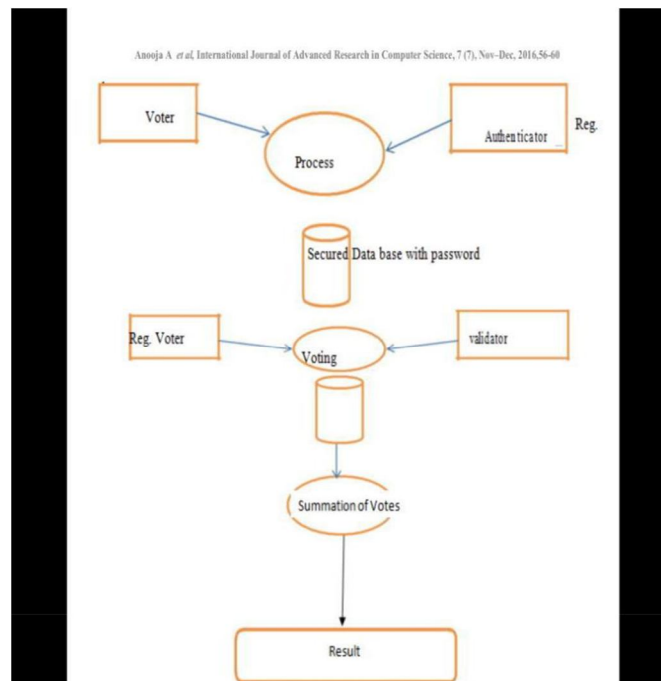
## III. METHODOLOGY OF IMPLEMENTATION

We can implement an online voting system that uses a distinctive voter id and password for the candidate in order to implement the system.

### A. Proposed Methodology

Several Internet voting frameworks will be created and compared with conventional voting systems to assess their weaknesses, feasibility, and full compliance with voting requirements [2].

Flow chart



**B. Algorithm**

In this project, we are going to use php and data base algorithms in order to implement this online voting system. There is a database for determining how many users have logged in and submitted votes, and PHP for the login and submission process.

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Database queries:

```

create database nitin

create table admin (Username varchar(20), Password
varchar(20))

insert into admin values ('Administrator', 'nitin')

create table voter (VoterId varchar(11) PRIMARY KEY , Name
varchar(20), Sex varchar(10), Age integer, City
varchar(20), Security varchar(20), Status boolean)

create table candidate (Symbol varchar(11) PRIMARY KEY , Name
varchar(20), Sex varchar(10), Age integer, City
varchar(20), count integer)
    
```

**UserName**

Administrator

**Password**

nitin

Admin Page

**Voter Id**

123456

Sample Voter Id

Voter Id

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**C. Applications**

With this online voting system, we can choose a specific person in online games, quizzes, and television shows such as Big Boss.

**D. Future Enhancement**

Future enhancements will include the use of online voting

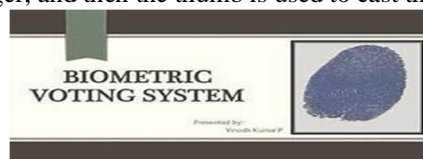
**E. Aadhaar Card**

Fast results are possible with this Aadhaar voting



**F. Biometric Online Voting**

In this paper, I will explain how the user can use their thumb in order to vote using a biometric voting machine. By using this thumb, we can reduce cheating during voting because each thumb is different from all other users. This makes it more secure than paper ballot voting. It is different for every voter. The biometric thumb is used as shown above. The voter inserts their finger into the biometric device, which then scans the finger, and then the thumb is used to cast their vote.





#### IV. CONCLUSION

In comparison to traditional voting methods, online voting offers many advantages. Among them are less cost, faster generation of results, easy accessibility, accuracy, and low risk of human error. Online voting systems require a high level of security and privacy. Future development focuses on designing a system that is simple to use while providing security and privacy at an acceptable level through proper authentication.

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