

# Online Voting System

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Date of Submission: 20-04-2023

Date of Acceptance: 30-04-2023

**ABSTRACT:** First take a look at traditional voting system. Large space and manpower is required to setup voting booths in multiple areas around city or village. High security has to be maintained on the date of election. Voter must visit the place where voting booth is arranged. Sometimes, voter needs to stand in a queue for a long time. Again, manpower is required for volunteering and assistance of voters at the place of voting. Voting process is done manually on voting machine. Vote counting is done with the manual process. Then there is a gap of few days for results to be displayed. So if we see, here in traditional voting system, we need lot of manpower, energy, and time to conduct this process.

Now to overcome above mentioned problems, we are going to develop an application called Online Voting System. Now as we all know, almost everything can be done online. Like Money transfer, Shopping, Booking, Teaching, Data sharing, Admissions, Job search, etc. And so many other activities are done with the help of internet. So with the easy access and use of internet, we are going to take this existing voting system on advance level. We are going to develop an online platform with high security so that the same process could be done easily without the waste of time, afford, and energy.

**KEYWORDS:** Voter, Group, Candidate, Web application, Online, Election, Voting, Results, Mobile.

## I. INTRODUCTION

This project focuses on a system that uses login credentials to unlock the voting system just like in your phone, and it also uses high security email verification method so that no one can vote for someone else, and this system does not require physical presence to cast a vote as the traditional system does. The process is time-consuming as well. The entirely web-based system enables people to cast their votes from anywhere in the world.

### Background

India being a democracy, that too world's largest, still conducts its elections using either

Secret Ballet Voting or Electronic Voting Machines (EVM) both of which involve high costs, manual labor and are inefficient. So, the system must be optimized to be made efficient which would not leave room for unwanted means of voting. The current system requires the physical presence of every individual which is inconvenient to many people.

Using unique identity credentials, the chance of duplicating a vote is less, and those who are registered prior to the election and are recognized by the system will be allowed to vote. Currently, voting systems are Electronic Voting Machines (EVM) and Secret Ballet Voting which require man-power and are time-consuming processes. Individuals above age 18 are eligible to vote. Voter's Id and others details are validated manually and only after confirmation he/she will be allowed to vote.

### Objective

The main objective of this project is to develop a web application with high security for the purpose of online voting.

Application can be defined as follows:

- [1]. Admin will add candidates in panel if they qualify verification criteria.
- [2]. Voter verification will be done by Admin. After verification, every voter will be given unique code for registration.
- [3]. Admin will initiate election process through panel.
- [4]. Voting will be done by voters. Before voting of every individual, email verification will be done.
- [5]. After completion of voting, results will be generated in excel sheet in Admin panel

### Purpose, Scope and Applicability

#### Purpose

The purpose of Online Voting System is to save time, energy, money, and effort which are wasted in traditional voting system.

#### Scope

This system can be used personally like for institutes, schools, etc. and on a larger scale such as government elections.

**Applicability**

This application can be used for election purpose in government sector, sports, education, etc.

**Achievement**

The benefit after completing this project is we have saved lot of time, energy, money, efforts of election committee as well as voters.

**1. Survey of the Technology :**

India being a democracy, that too world's largest, still conducts its elections using either Secret Ballot Voting or Electronic Voting Machines (EVM) both of which involve high costs, manual labor and are inefficient. So, the system must be optimized to be made efficient which would not leave room for unwanted means of voting. The current system requires the physical presence of every individual which is inconvenient to many people.

**1.1. Existing System:**

Currently, voting systems are Electronic Voting Machines (EVM) and Secret Ballot Voting which require man-power and are time-consuming processes. Individuals above age 18 are eligible to vote. Voter's Id and others details are validated manually and only after confirmation he/she will be allowed to vote.

The EVMs have to be checked and transported to different parts of the country wherever the election is taking place. It also needs manual power and security. The counting of the votes casted in EVMs also needs manpower and takes an entire day and ballot voting is entirely manual. So, there are a lot of ways the counting and the voting to not be clean. Hence the current system can be made a lot better, more accessible and more efficient.

**2. Data Base Tables:**

**Admin Table:-**

S. No.	Field Name	Data Type	Description
1	Login id	Varchar	Login id for Admin.(Primary key)
2	Password	Varchar	Password for Login
3	Name	Varchar	Name of the Administrator

Large space and manpower is required to setup voting booths in multiple areas around city or village. High security has to be maintained on the date of election. Voter must visit the place where voting booth is arranged. Sometimes, voter needs to stand in a queue for a long time. Again, manpower is required for volunteering and assistance of voters at the place of voting.

Voting process is done manually on voting machine. Vote counting is done with the manual process. Then there is a gap of few days for results to be displayed. So if we see, here in traditional voting system, we need lot of manpower, energy, and time to conduct this process.

**1.2. Proposed System:**

The system we are proposing is a solution that addresses all the above concerns mentioned. Now as we all know, almost everything can be done online. Like Money transfer, Shopping, Booking, Teaching, Data sharing, Admissions, Job search, etc. And so many other activities are done with the help of internet. So with the easy access and use of internet, we are going to take this existing voting system on advance level. We are going to develop an online platform with high security so that the same process could be done easily without the waste of time, effort, and money.

**Functions and features will be followed as:**

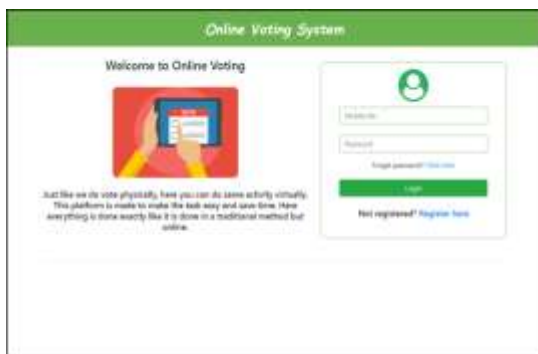
- [1]. Admin will add candidates in panel if they qualify verification criteria.
- [2]. Voter verification will be done by Admin. After verification, every voter will be given unique code for registration.
- [3]. Admin will initiate election process through panel.
- [4]. Voting will be done by voters. Before voting of every individual, email verification will be done.
- [5]. After completion of voting, results will be generated in excel sheet in Admin panel.

**Voter information Data Table:-**

S. No.	Field Name	Data Type	Description
1	Login id	Varchar	Login id for Voter(Primary key)
2	Password	Varchar	Password for Login
3	Name	Varchar	Name of the voter
4	Father's/Husband name	Varchar	Voter's father or husband name
5	House no.	Varchar	House no. of voter
6	Address	Varchar	Address of voter
7	City	Varchar	City of voter
8	Mobile	Varchar	Mobile No of voter
9	E-Mail	Varchar	E-Mail of voter

**3. SYSTEM DESIGN**

“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 years of any human 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.



**Fig-1:** Homepage of voter

In “ONLINE VOTING SYSTEM” a voter can use his\her voting right online without any difficulty. He\She has to fill a registration form to register himself\herself. All the entries is checked by the DATABASE which has already all information about the voter. If all the entries are correct then a

USER ID and PASSWORD is given to the voter, by using that ID and PASSWORD he\she can use his\her vote. If conditions are wrong then that entry will be discarded.



**Fig-2:** Voter registration page

**4. Problem definition**

In this section, we define problems. The problem is that, when elections are to be conducted, lot of money, physical space, man power is required. And there are so many people who are qualified for voting like old ones, but due to age factor or medical illness they are not able to visit voting venue. Another problem is that, voting machine could be manipulated by some bad people which can result in fake voting or one sided voting.

**5. Role and Responsibility:**

This project is designed so that elections could be conducted through digital medium. Now

almost everything can be done online like, money transfer, shopping, booking, teaching, data sharing, admissions, job search, etc. And so many other activities are done online nowadays. So with the easy access and use of internet, we are going to step up this existing voting system on advance level.

The role of this project is to save time, energy and affords of election committee as well as participants that is wasted in conducting the process as well as casting votes. Notes for the studies, getting their doubts cleared over the internet in case where the staff is unavailable.

Main responsibility of this project is to give simple and easy access to election process for both election committee as well as participants. Every step which is required for voting can be performed as it is on this system. Just the difference is that, traditionally, election committee has to setup a venue for participants to cast votes and participants has to visit that venue physically, but here, no one needs to move anywhere. Everything can be performed online from the comfort of home.

## II. CONCLUSIONS

This Online Voting system will manage the Voter's information by which voter can login and use his voting rights. The system will incorporate all features of voting system. It's provide the tools for maintaining voter's vote to every party and it count total no. of votes of every party. 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.

In this user who is above 18 year's register his/her information on the database and when

he/she want to vote he/she has to login by his id and password and can vote to any party only single time. Voting detail store in database and the result is displayed by calculation. By online voting system percentage of voting is increases. It decreases the cost and time of voting process. It is very easy to use and it is vary less time consuming. It is very easy to debug.

### Limitations of the system

- Internet connectivity required
- Smartphone/Laptop/PC is required
- Gmail account is mandatory for every voter
- Only one election process could be conducted at a time
- Performance may become slow if network/server issue occurs

### Future enhancements

- Face detection
- Fingerprint sensor
- SMS availability
- Multiple elections at a time
- Results declaration on mail of each participant

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