

# Advanced E-Voting System

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**Project Guide :**

**Mr. Anas sir**

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# ❑ INTRODUCTION TO ONLINE VOTING SYSTEM

1. **"ONLINE VOTING SYSTEM"** is an online voting technique. In this system people who are citizens and whose age is above 18 years of age and any sex can give his/her vote online without going to any physical polling station.
2. 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 manually. Registration is mainly done by the system administrator for security reasons.
3. After registration, **the voter is assigned a secret Login ID and password** 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. [1]

## ❑ BACKGROUND OF STUDY

- **The Online voting system (OVS) also known as e-voting is a term encompassing several different types of voting embracing both electronic means of counting votes.** Electronic voting technology can include punched cards, optical scan voting systems and specialized voting kiosks (including self-contained direct-recording electronic voting systems or DRE). It can also involve transmission of ballots and votes via telephones, private computer networks, or the internet.
- **Online voting is an electronic way of choosing leaders via a web driven application. The advantage of online voting over the common "queue method" is that the voters have the choice of voting at their own free time and there is reduced congestion. It also minimizes on errors of vote counting.** The individual votes are submitted in a database which can be queried to find out who of the aspirants for a given post has the highest number of votes.
- **This system is geared towards increasing the voting percentage in India since it has been noted that with the old voting method (the Queue System), the voter turnout has been a wanting case. With system in place also, if high security is applied, cases of false votes shall be reduced. [2]**

- With the "ONLINE VOTING SYSTEM", a voter can use his\her voting right online without any difficulty. **He\She has to register as a voter first before being authorized to vote.** The registration should be done prior to the voting date to enable data update in the database.
- However, not just anybody can vote. For one to **participate in the elections**, he/she must have the requirements. For instance, he/she must be a registered citizen i.e. must be 18 and above years old. As already stated, **the project 'Online Voting' provides means for fast and convenient voting and access to this system is limited only to registered voters.**
- Internet voting systems are appealing for several reasons which include; **People are getting more used to work with computers to do all sorts of things, namely sensitive operations such as shopping and home banking and they allow people to vote far from where they usually live, helping to reduce absenteeism rate.**

## ❑ SIGNIFICANCE OF STUDY

The main purposes of OVS include :

- Provision of improved voting services to the voters through fast, timely and convenient voting.
- Reduction of the costs incurred by the Electoral Authority during voting time in paying the very many clerks employed for the sake of the success of the manual system.
- Check to ensure that the members who are registered are the only ones to vote. Cases of "Dead People" voting are also minimized. [3]
- Online voting system (OVS) will require being very precise or cost cutting to produce an effective election management system.
- Increased number of voters as individual will find it easier and more convenient to vote, especially those abroad.

## ❑ OBJECTIVES OF THE PROJECT

The specific objectives of the project include : [4]

- ❖ Reviewing the existing/current voting process;
- ❖ Coming up with an automated voting system;
- ❖ Implementing a an automated/online voting system;
- ❖ Validating the system to ensure that only legible voters are allowed to vote.

# ❑ PROJECT JUSTIFICATION

The ONLINE VOTING SYSTEM-INDIA shall **reduce the time spend making long queues** at the polling stations during voting. It shall also **enable the voters to vote from any part of the globe** as explained since this is an online application available on the internet. Cases of **vote miscounts shall also be solved** since at the backend of this system resides a well-developed database using SQL Server that can provide the correct data once it's correctly queried. Since the voting process shall be open as early as possible, the voters shall have ample time to decide when and whom to vote for. [5]

## ❑ SCOPE OF STUDY

It is focused on studying system of voting and to make sure that the peoples vote is counts, for fairness in the elective positions. This is also will produce :

- **Less effort and less labor intensive, as the primary cost and focus primary on creating, managing, and running a secure web voting portal.**
- **Increasing number of voters as individuals will find it easier and more convenient to vote, especially those abroad.** [6]



# ❑ OLD METHODS OF VOTING

1. **Paper-based voting** : The Voters gets a blank ballot and use a pen or a marker to indicate he want to vote for which candidate. Hand-counted ballots is a time and labor consuming process, but it is easy to manufacture paper ballots and the ballots can be retained for verifying, this type is still the most common way to vote. Ever voting machine. [7]
2. **Lever Voting Machine** : Lever machine is peculiar equipment, and each lever is assigned for a corresponding candidate. The voter pulls the lever to poll for his favorite candidate. This kind of voting machine can count up the ballots automatically. Because its interface is not user-friendly enough, giving some training to voters is necessary.

3. **Direct Recording Electronic voting machine** : This type, which is abbreviated to DRE, integrates with keyboard; touch screen, or buttons for the voter press to poll. Some of them lay in voting records and counting the votes is very quickly. But the other DRE without keep voting records are doubted about its accuracy.
4. **Punch card** : The voter uses metallic hole-punch to punch a hole on the blank ballot. It can count votes automatically, but if the voter's perforation is incomplete, the result is probably determined wrongly.
5. **Optical voting machine** : After each voter fills a circle correspond to their favorite candidate on the blank ballot, this machine selects the darkest mark on each ballot for the vote then computes the total result.

# ❑ SECURITY ISSUES FOR ONLINE VOTING

- Foreign experience revealed that they are often confronted by security issues while the online voting system is running. The origin of the security issues was due to not only outsider (such as voters and attackers) but also insider (such as system developers and administrators), even just because **the inheritance of some objects in the source code are unsuitable**. These errors caused the voting system to crash.
- The proposed solutions were correspondingly outlined to hold back these attacks. For example, to avoid hacker making incursion into the voting system via network, we can **design our system to transmit data without network**. Another example is to limit voter to input particular data, so that we can prevent the command injection from running. [8]

# □ REQUIREMENTS

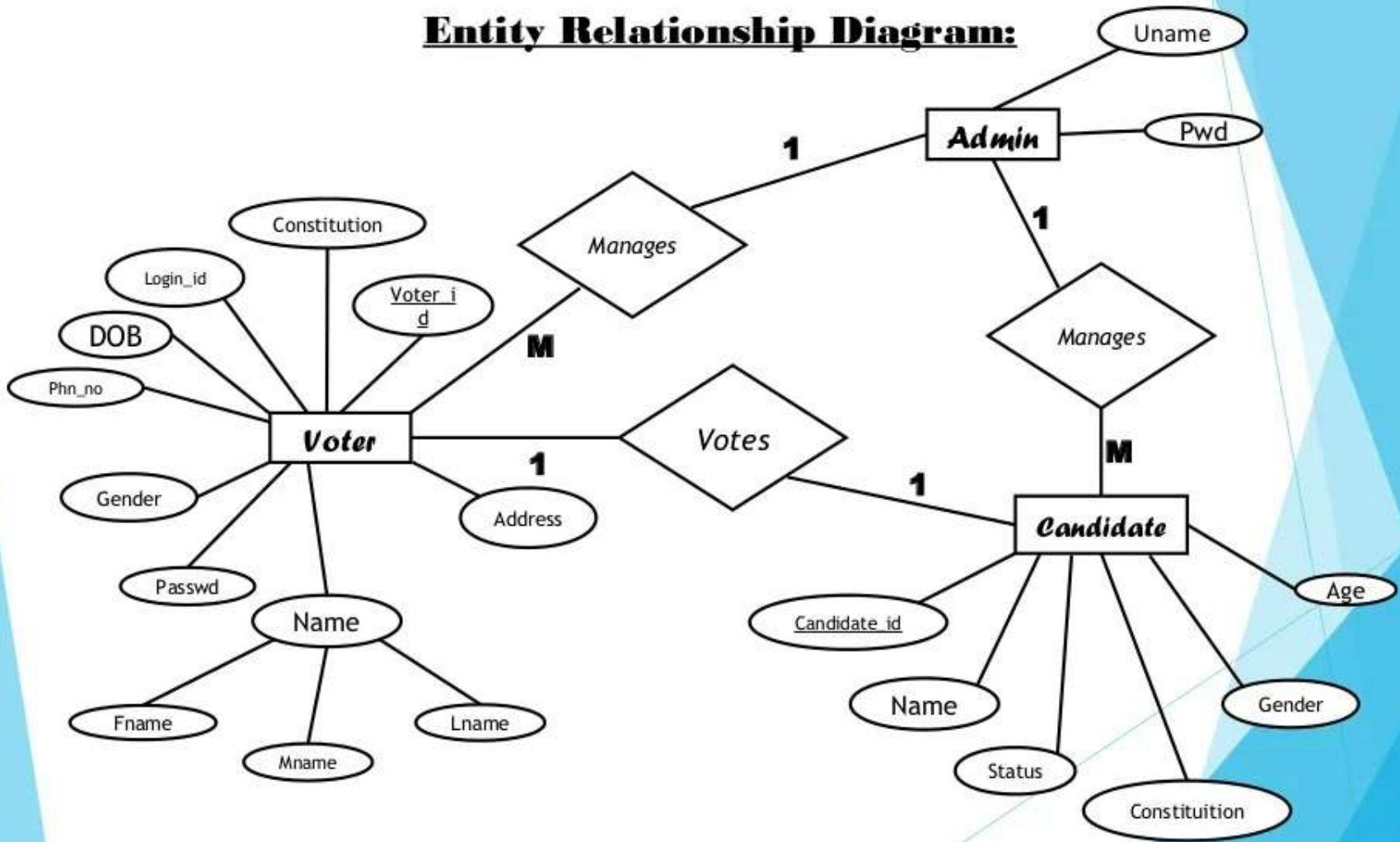
- 1) Registration of the voter is done by ELECTION AUTHORITY.
- 2) ELECTION AUTHORITY can change the information any time if required.
- 3) Registration of the Voter depends upon the information filled by the user manually to the ELECTION AUTHORITY.
- 4) Voter is given a unique Login ID and PASSWORD.
- 5) In the DATABASE information of every voter is stored.
- 6) Database shows the information of every user. [9]

# **❑ PROBLEMS WITH THE EXISTING VOTING REGISTRATION SYSTEM**

The problems of the existing manual system of voting include among others the following :

- 1.Expensive and Time consuming
- 2.Too much paper work
- 3.Errors during data entry
- 4.Loss of registration forms
- 5.Short time provided to view the voter register [10] & [11]

## Entity Relationship Diagram:



# ❖ APPLICATION'S OUTPUT

❑ Registration Page :- It is the main page used for registration of the voter in our Online Voting System.



The image shows a web form titled "Online Voting System" with a "Registration" section. The form includes input fields for Name, Mobile, Password, and Confirm Password. There is a text area for Address and a file upload section for an image. A dropdown menu allows selecting the role as "Voter". A blue "Register" button is at the bottom, followed by a link for existing users.

**Online Voting System**

**Registration**

Name:  Mobile:

Password:  Confirm Password:

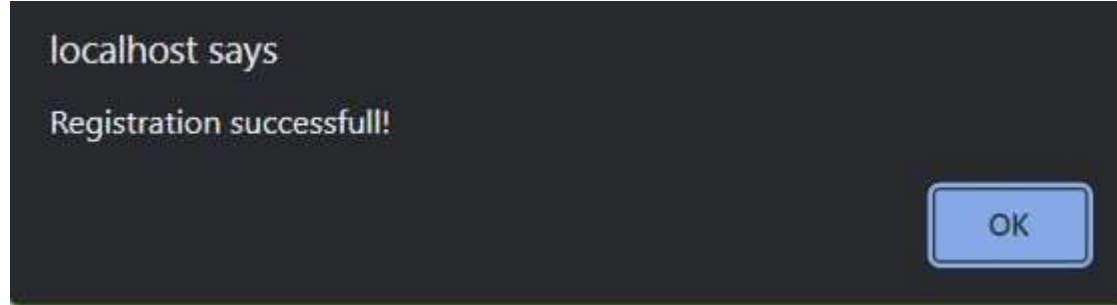
Address:

Upload image:  No file chosen

Select your role:

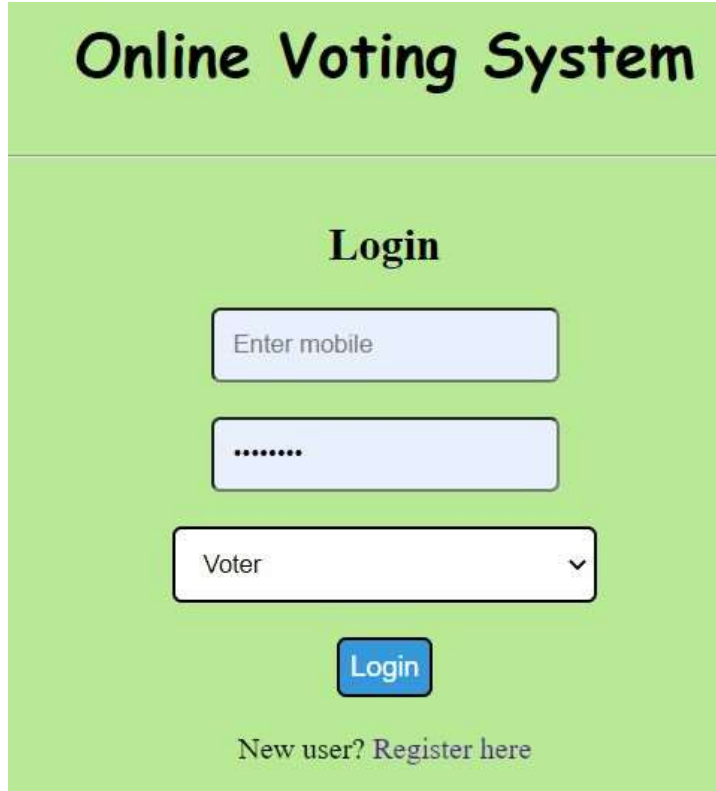
Already user? [Login here](#)

- ❑ Confirmation of Successful User Registration :- It displays a message confirming that the user has been successfully registered on the Voting System.





- ❑ Login Page :- It is used to login a user into the main UI of the Voting System.



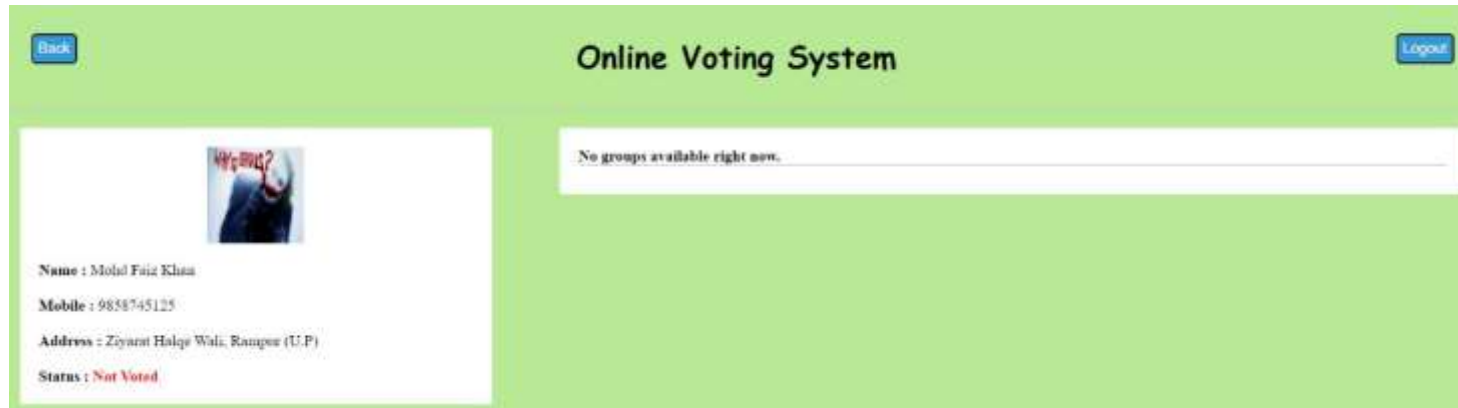
The image shows a login page for an "Online Voting System". The page has a light green background. At the top, the title "Online Voting System" is displayed in a large, bold, black font. Below the title, the word "Login" is centered in a bold, black font. There are three input fields: the first is a light blue box with the placeholder text "Enter mobile"; the second is a light blue box with seven dots representing a password; the third is a white box with the placeholder text "Voter" and a small downward arrow on the right side, indicating a dropdown menu. Below these fields is a blue button with the word "Login" in white. At the bottom, the text "New user? Register here" is displayed in a smaller, black font.

# Online Voting System

## Login

New user? Register here

❑ Dashboard :- Dashboard is the main UI of Voting System.



☐ Candidate :- Add Candidates for voting purpose.

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**Group Name :** Chief Minister

**Votes :** 1

Voted



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**Group Name :** MLA

**Votes :** 0

Voted



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**Group Name :** MP

**Votes :** 1

Voted



❑ Voter :- Add Voters for voting purpose in Voting System.

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**Group Name :** Khaqan

**Votes :** 1

Voted




- ❑ Ballot Preview :- Tally the vote immediately showing all the necessary details of the candidate, political party's election symbol, total number of votes received in real-time and position.


[Back](#)


Online Voting System


[Logout](#)




Name : MP  
Mobile : 9841251266  
Address : Goutam Buddha Nagar (U.P)  
Status : Voted

Group Name : Khagan  
Votes : 1  
[Voted](#)

Group Name : Chief Minister  
Votes : 1  
[Voted](#)

Group Name : MLA  
Votes : 0  
[Voted](#)

Group Name : MP  
Votes : 1  
[Voted](#)

# □ CONCLUSION

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 provides 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 AUTHORITY 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 very less time consuming. It is very easy to debug.

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THANK-YOU!