



NirvachanPrabandhan (Election Management System)

Group Name:
ElectroCrats (Electoral + Technocrats)

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Objective

The NirvachanPrabandhan Election Management System is designed to make the entire election process easy and secure. It stores the necessary data of all the processes involved from voter registration to result declaration. By centralizing voter, candidate, and polling station data, it ensures accurate and real-time access to essential information. It reduces the manual burden in critical tasks like vote counting and result computation. Additionally, it enhances transparency, allowing voters and candidates to trust the electoral process. Overall, NirvachanDB offers a scalable, efficient, and transparent way to manage elections with least manual intervention.

Application Users :

- Voters
- Election Commission Officers
- Candidates
- Polling Staff

Use Cases - Voters

These are the list of eligible voters who can vote in their respective constituency.

- **Check Voter Status:** Voters can verify whether they are successfully registered, and check if their information is accurate.
- **View Polling Station Information:** Voters can see their assigned polling station, along with its location and date and timing of the polling.
- **Know Your Candidate:** Before polling, the voters can check the details of the candidates, such as their age, educational qualifications, criminal records, assets, etc., contesting in their constituency so as to make an informed decision.
- **Submit Complaints:** If any issues occur (e.g., missing from the voter list), voters can lodge complaints or grievances with the Election Commission.
- **Check Election Results:** After counting of votes, they can track election results including complete details.

Use Cases - Election Commission Officers:

These are various officials and officers like Chief Election Commissioner (CEC), Election Commissioners (ECs), Chief Electoral Officer (CEO), District Election Officer (DEO), etc... who are responsible for managing the electoral process at different levels.

- **Manage Voter Registration:** Officers can approve, reject, or update voter registration applications based on verification.
- **Check Constituency Data:** Officers can manage the constituency details, assign polling stations, and voter allocations.
- **Generate Election Timelines:** They can schedule election phases, set voting dates, and assign polling staff to specific locations.
- **Monitor Election Results:** Officers can oversee vote counts, track voter turnout, etc.
- **Handle Complaints and Issues:** Manage and respond to complaints from voters, candidates, or polling staff, and ensure fast solutions to the complaints.

Use Cases - Candidates:

These are the candidates who are contesting the elections.

- **File Nomination:** Candidates can submit their applications, along with documents like nomination forms, educational background, and asset declarations along with filling the affidavit.
- **Track Campaign Expenditures:** The system helps candidates report campaign expenditures and ensure they comply with legal limits.
- **Monitor Election Results:** After the counting of votes, they can check the votes to track their performance in their respective constituencies.

Use Cases - Polling Staff:

Polling staff are responsible for managing the voting process at polling stations. They verify voter identities, ensure smooth voting, and report any issues that arise during the election day.

- **Access Polling Station Information:** Polling staff can access their assigned polling station details, including resources, location, and voter list.
- **Manage Voter Entry:** They can verify voters' identities and mark them as having voted, ensuring no duplicate entries.
- **Report Election Day Issues:** Staff can report logistical issues, technical malfunctions, or irregularities at the polling station.
- **Submit Polling Data:** After voting is concluded, staff can upload vote counts polled and submit the data securely to the central system.

Tentative List of Relations(Tables)

Voters - Stores registered voter details

Candidates - Stores candidate details

Parties - Stores political party info

Constituencies - Stores constituency details

Polling_Booths - Stores polling booth locations

Election_Schedule - Stores election dates for constituencies

VVPAT_EVM - Tracks EVM/VVPAT machines

Election_Observers - Stores details of election observers

Election_Officials - Stores election officials like RO, ARO, DEO

Complaints - Stores voter complaints

Election_Results - Stores election winners and margins

Election_Support_Staff - Stores information about pre-election staff required.

Polling_Staff - Stores information about staff deployed on voting day at polling booths.

Tentative Queries :

1. Find voter details by Voter ID.
2. Check if a voter has already casted their vote.
3. Get list of candidates contesting in a constituency.
4. List all candidates from a particular party.
5. Retrieve affidavit details (criminal records, assets, liabilities, educational qualifications) of a candidate.
6. Find complaints related to a specific polling booth.
7. Get the winning candidate for a constituency.
8. Get details of various officers at the constituency.
9. Get a list of constituencies with low voter turnout (<50%).
10. Count the total voters assigned to each polling booth.
11. Find vote margins