



Online Voting System

A secure and transparent **web-based voting platform** designed to conduct elections digitally. This system eliminates the need for physical voting booths and manual vote counting, enabling users to cast their votes online with proper authentication and data security.



Project Overview

The **Online Voting System** allows eligible users to vote online from anywhere while ensuring privacy, fairness, and transparency.

It consists of two major modules:

- **Admin Module** – For managing elections and candidates
- **User Module** – For voter registration and voting

The system uses **OTP-based authentication** through a third-party API (2Factor) to verify user identity.



Features



Admin Module

- Create and manage elections (title & type)
- Add candidates with:
 - Photo
 - Party name
 - Party symbol
 - Description

- Start, stop, view, and delete elections
- **Monitor live voting results in real time**

User Module

- Secure registration with:
 - Name
 - Mobile number
 - Aadhaar number
 - Address
- OTP-based login using **2Factor OTP API**
- One Aadhaar + one mobile number = **one vote only**
- Personalized dashboard:
 - Active elections
 - Upcoming elections
 - Past elections
- Simple and secure voting interface
- Automatic logout after voting

Live Result Display

- **Real-time result updates**
- Public access (no login required)
- Maintains complete voter anonymity
- Data updates instantly as users vote

Security Measures

- OTP-based authentication
- Role-based access control (Admin & User)
- Duplicate vote prevention
- Secure vote storage using MongoDB
- Session termination after voting

Tech Stack

Frontend

- HTML
- CSS
- JavaScript

Backend

- Node.js
- Express.js

Database

- MongoDB

Authentication

- 2Factor OTP API

Installation & Setup

1. Clone the repository

```
git clone https://github.com/your-username/online-voting-system.git
```

2. Navigate to project folder

```
cd online-voting-system
```

3. Install dependencies

```
npm install
```

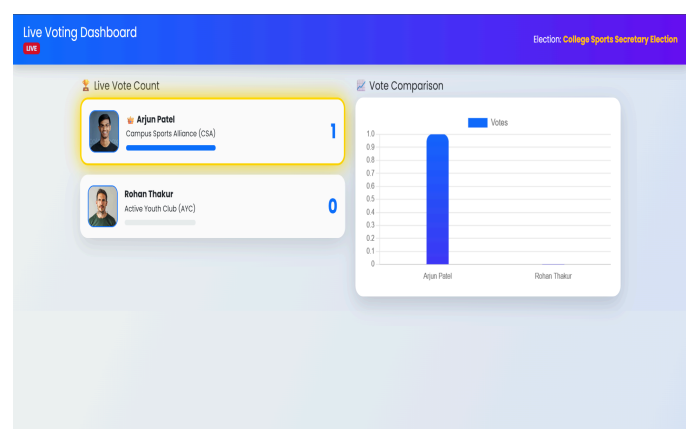
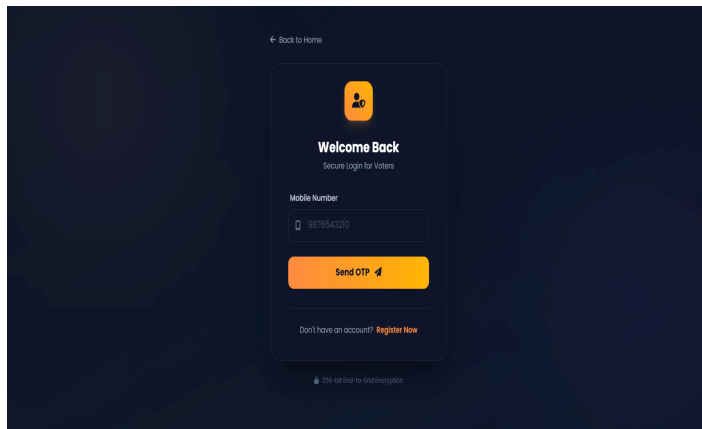
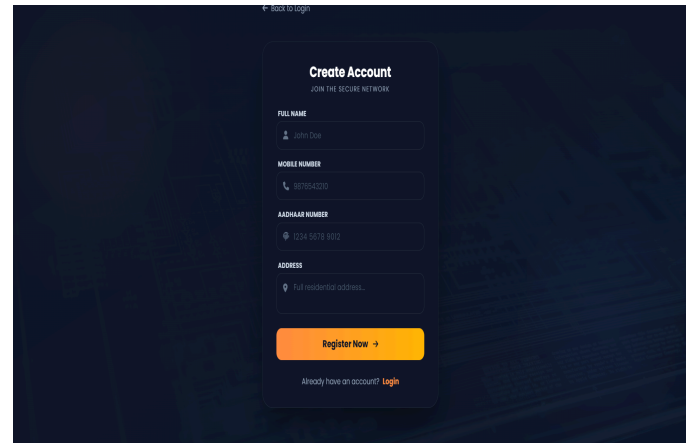
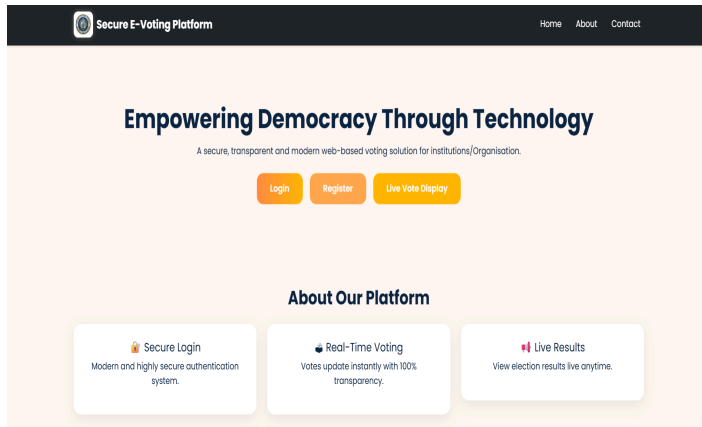
4. Create a `.env` file and add:

```
PORT=5000  
MONGO_URI=your_mongodb_connection  
OTP_API_KEY=your_2factor_api_key
```

5. Run the project

```
npm start
```

Screenshots



Future Enhancements

- Admin analytics dashboard
- Email verification
- Improved UI/UX
- Advanced security layers
- Mobile app version



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Support

If you like this project, give it a  on GitHub!