



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
```

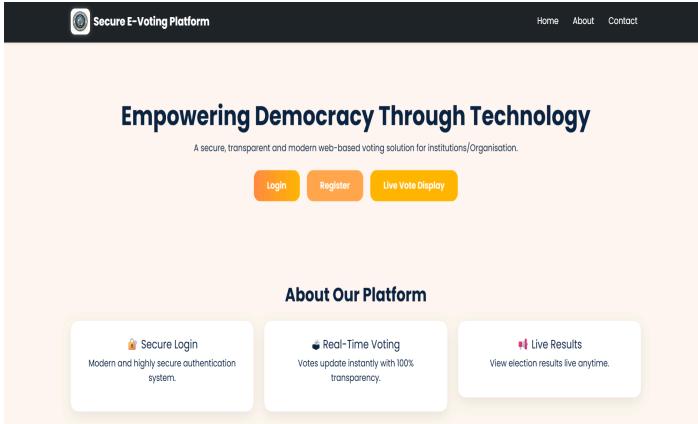
4. Create a `.env` file and add:

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

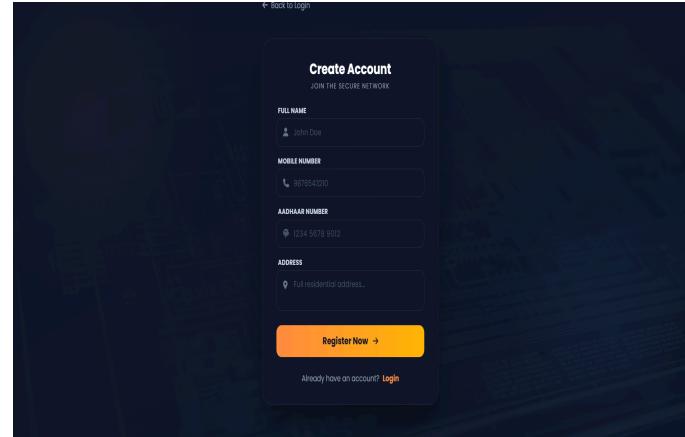
5. Run the project

```
npm start
```

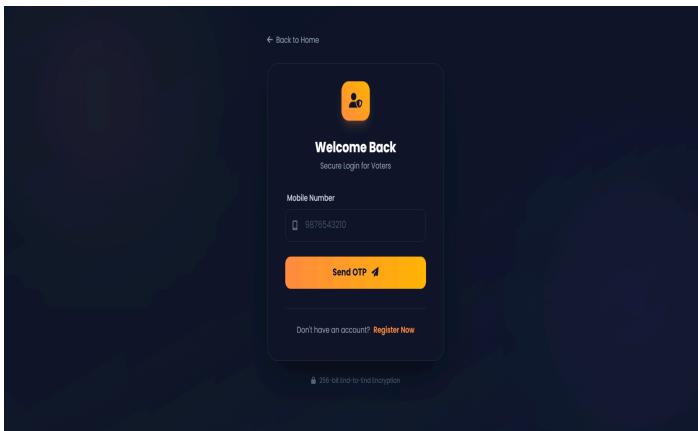
Screenshots



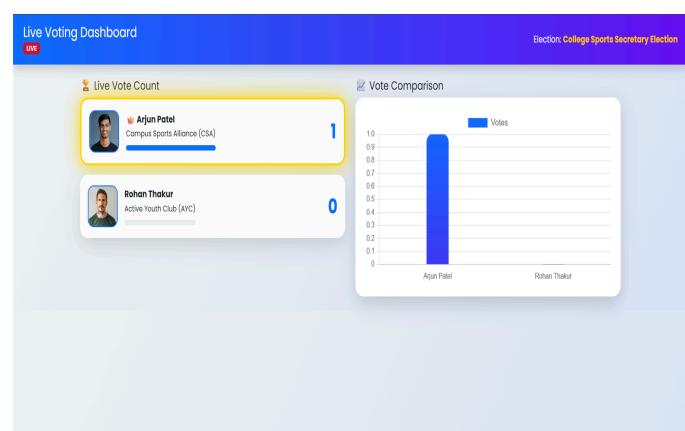
The screenshot shows the homepage of the Secure E-Voting Platform. At the top, there's a navigation bar with a logo, "Secure E-Voting Platform", "Home", "About", and "Contact". Below the navigation is a main heading "Empowering Democracy Through Technology" with a subtext: "A secure, transparent and modern web-based voting solution for institutions/Organisation." There are three buttons: "Login", "Register", and "Live Vote Display". Underneath, there's a section titled "About Our Platform" with three cards: "Secure Login" (Modern and highly secure authentication system), "Real-Time Voting" (Votes update instantly with 100% transparency), and "Live Results" (View election results live anytime).



This screenshot shows the "Create Account" page. It has a "Join the Secure Network" button at the top. The form fields include "FULL NAME" (John Doe), "MOBILE NUMBER" (9876543210), "AADHAAR NUMBER" (1234 5678 9012), and "ADDRESS" (Full residential address...). A "Register Now" button is at the bottom right, and a link "Already have an account? Login" is below it.



The screenshot shows the "Welcome Back" page. It features a "Secure login for Voters" section with a "Mobile Number" input field containing "9876543210" and a "Send OTP" button. Below this is a note: "Don't have an account? Register Now". At the bottom, there's a security note: "SSL 256-bit End-to-End Encryption".



The screenshot shows the "Live Voting Dashboard" for the "College Sports Secretary Election". It displays a "Live Vote Count" chart where Arjun Patel from Campus Sports Alliance (CSA) has 1 vote and Rohan Thakur from Active Youth Club (AYC) has 0 votes. To the right is a "Vote Comparison" chart showing the same data. The dashboard also includes a "Back to Home" button and a "Logout" button.

Future Enhancements

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



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⭐ Support

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