



User Manual

Project: Voteegrity

Author 1: Thomas Kelly

Author 2: Rishabdev Sidhu

Supervisor: Geoffrey Hamilton

Completion Date: 18/04/2024



Abstract

Voteegrity is an innovative blockchain-based voting system designed to enhance the transparency, security, and accessibility of election processes in a world where technology, transparency, and confidence in democratic processes are all fast advancing. Leveraging the decentralized and tamper-resistant nature of blockchain technology, The system ensures the voting integrity of each vote cast while providing a secure and transparent platform for users, employs smart contracts to automate and validate the voting process, eliminating the risk of fraud and manipulation. Voteegrity prioritizes user privacy and trust, employing cryptographic techniques to safeguard sensitive information and accommodates various authentication and verification methods, ensuring a seamless and accessible voting experience for all users.

Requirements

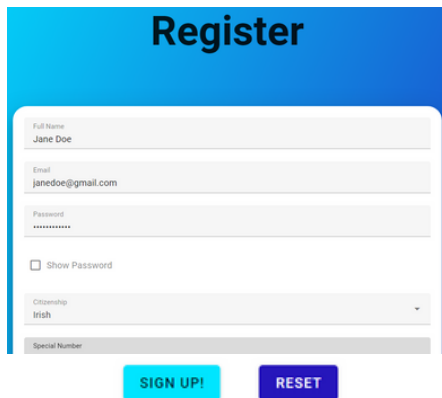
Computer with access to the internet and browsers

User Guide - User

1. Register

- To use the system you must first create an account
- Go to the url and you will automatically be redirected to the login page
- Click the register button on the top right to go the register form
- Fill in your details and click 'Sign Up!' to create your account

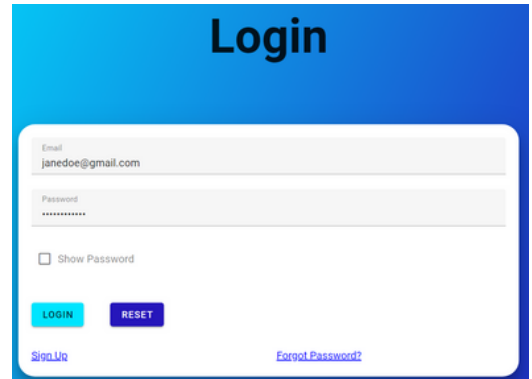
REGISTER



The Register form is titled 'Register' in large blue text. It contains several input fields: 'Full Name' (filled with 'Jane Doe'), 'Email' (filled with 'janedoe@gmail.com'), 'Password' (filled with '*****'), and 'Special Number'. There is a checkbox for 'Show Password' and a dropdown for 'Citizenship' (filled with 'Irish'). At the bottom, there are two buttons: 'SIGN UP!' in blue and 'RESET' in purple.

2. Login

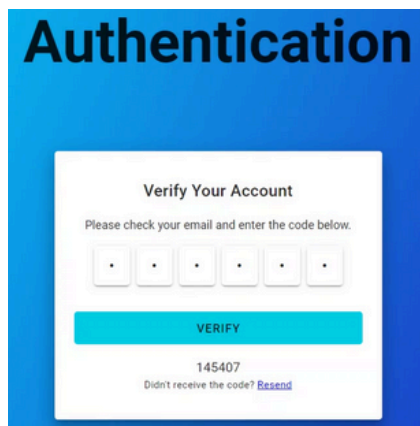
- Enter the email and password you provided in the register form to login and click the 'Login' button



The Login form is titled 'Login' in large blue text. It contains two input fields: 'Email' (filled with 'janedoe@gmail.com') and 'Password' (filled with '*****'). There is a checkbox for 'Show Password'. Below the fields are two buttons: 'LOGIN' in blue and 'RESET' in purple. At the bottom, there are two links: 'Sign Up' and 'Forgot Password?'.

3. Authentication

- You must authenticate your account by entering in the 6 digit code sent to the email address you provided when registering your account, then click 'Verify'
- This will only be required to complete successfully once



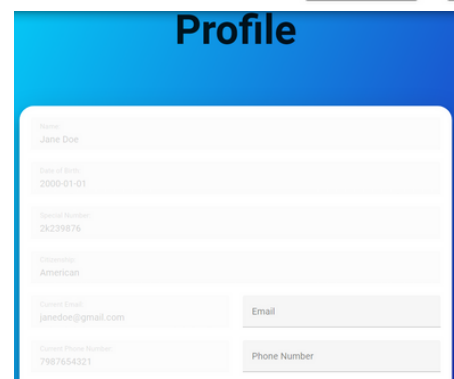
The Authentication form is titled 'Authentication' in large blue text. It contains a section titled 'Verify Your Account' with the instruction 'Please check your email and enter the code below.' Below this is a row of six input fields for a 6-digit code. At the bottom, there is a blue 'VERIFY' button and a text display showing '145407' with a link 'Didn't receive the code? Resend'.

4. Profile

- To view or change your details, click the profile button on the top right
- If you wish to change your email or phone number, provide the new details and 'Submit'
- The details will change successfully provided no other person with an account has the same email or phone number you provided

PROFILE

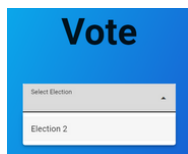
LOGOUT



The Profile form is titled 'Profile' in large blue text. It contains several input fields: 'Name' (filled with 'Jane Doe'), 'Date of Birth' (filled with '2000-01-01'), 'Special Number' (filled with '2K239876'), 'Citizenship' (filled with 'American'), 'Current Email' (filled with 'janedoe@gmail.com'), and 'Current Phone Number' (filled with '7987654321'). There are also empty input fields for 'Email' and 'Phone Number'. At the bottom, there is a blue 'SUBMIT' button.

5. Vote

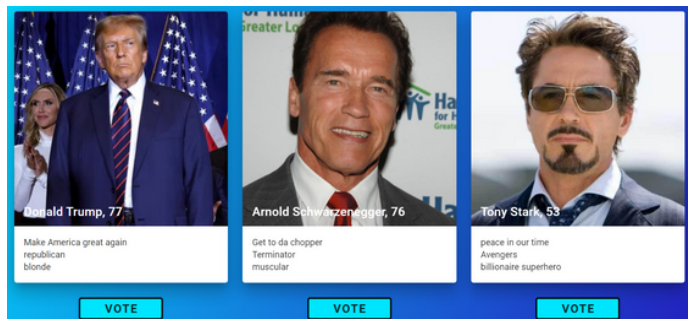
- Each election will have it's own voting system and requires you to vote differently
- First choose the election you wish to vote for
- Then depending on the election process, you must choose one candidate to vote for or assign rankings to all candidates with 1 being the highest preference
- Click 'Vote' once you have made your choice



Vote

Select Election

Election 2

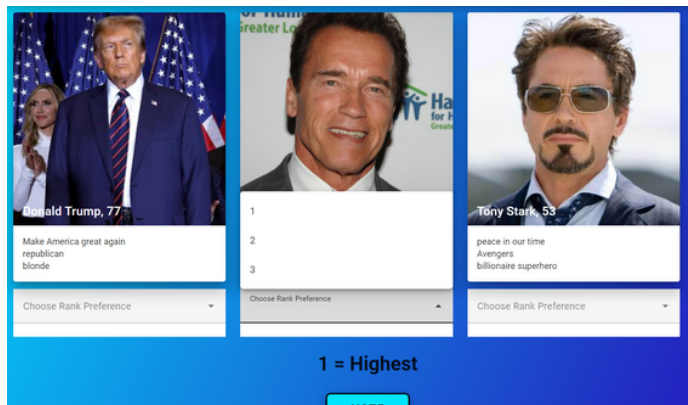


Donald Trump, 77
Make America great again
republican
blonde

Arnold Schwarzenegger, 76
Get to da chopper
Terminator
muscular

Tony Stark, 53
peace in our time
Avengers
billionaire superhero

VOTE **VOTE** **VOTE**



Donald Trump, 77
Make America great again
republican
blonde

Arnold Schwarzenegger, 76
1
2
3
Choose Rank Preference

Tony Stark, 53
peace in our time
Avengers
billionaire superhero

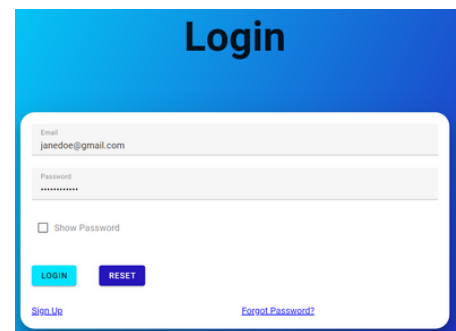
Choose Rank Preference

1 = Highest

VOTE

6. Change password

- To change your password you must be logged out of the system
- On the login form click 'Forgot Password?' at the bottom middle of the form
- Enter the email address associated with your account
- A 6 digit code will be sent to that email, input the code and answer the security questions correctly to change your password
- You may then login using your new password



Login

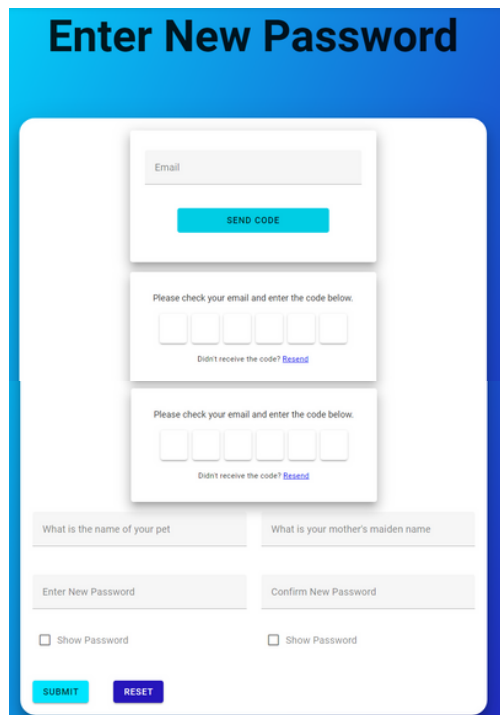
Email
janedoe@gmail.com

Password

☐ Show Password

LOGIN **RESET**

[Sign Up](#) [Forgot Password?](#)



Enter New Password

Email

SEND CODE

Please check your email and enter the code below:

1 2 3 4 5 6

Didn't receive the code? [Resend](#)

Please check your email and enter the code below:

1 2 3 4 5 6

Didn't receive the code? [Resend](#)

What is the name of your pet

What is your mother's maiden name

Enter New Password

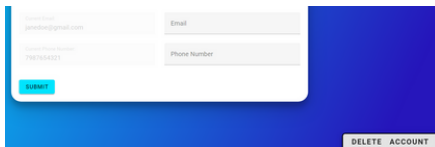
Confirm New Password

☐ Show Password ☐ Show Password

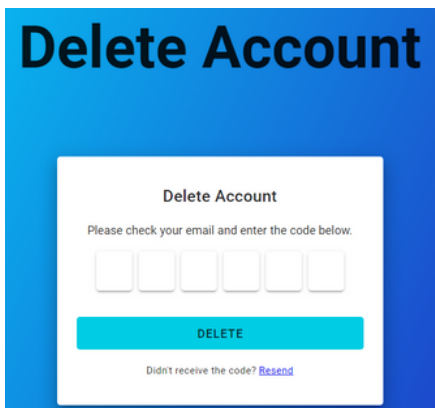
SUBMIT **RESET**

7. Delete account

- On your profile page at the bottom right click the delete account button
- Enter the 6 digit code sent to your email to successfully delete your account



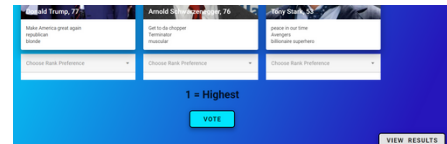
A screenshot of a web form for deleting an account. It has two input fields: 'Email' with the placeholder 'jonesdave@gmail.com' and 'Phone Number' with the placeholder '787554321'. Below these is a blue 'Submit' button. In the bottom right corner of the form area, there is a small 'DELETE ACCOUNT' button.



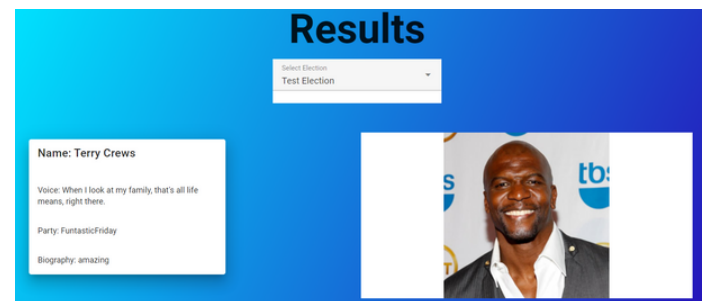
A screenshot of a page titled 'Delete Account'. It asks the user to 'Please check your email and enter the code below.' There are six empty square boxes for entering a 6-digit code. Below the boxes is a large blue 'DELETE' button. At the bottom, there is a link that says 'Didn't receive the code? Resend'.

8. Results

- To view the results of an election go to the vote page and click the view results button on the bottom right
- Select the election for which you wish to view the results for
- Here you can view the details of the candidate(s) for the selected election



A screenshot of a page showing three election options. Each option has a title, a description, and a 'Choose Rank Preference' dropdown menu. The options are: 'Donald Trump, 77' (Make America great again), 'Arnold Schwarzenegger, 76' (Let's do it right), and 'Terry Crews, 65' (Leave it out the way). Below these is a '1 = Highest' label and a blue 'VOTE' button. In the bottom right corner, there is a 'VIEW RESULTS' button.



A screenshot of a 'Results' page. At the top, there is a dropdown menu for 'Select Election' with 'Test Election' selected. Below this, there is a white box containing information about Terry Crews: 'Name: Terry Crews', 'Voice: When I look at my family, that's all life means, right there.', 'Party: FantasticFriday', and 'Biography: amazing'. To the right of this box is a photo of Terry Crews.

9. Logout

- To log out of the system click the logout button on the top right

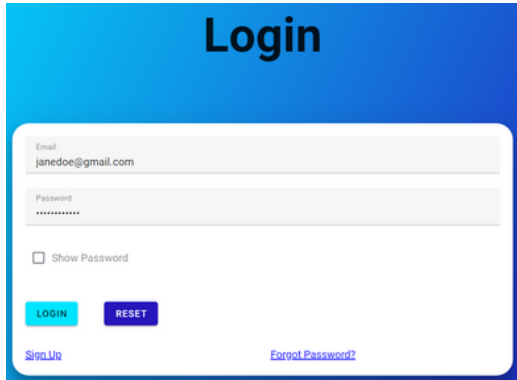


A screenshot showing two buttons: a blue 'PROFILE' button and a purple 'LOGOUT' button.

User Guide - Admin

1. Login

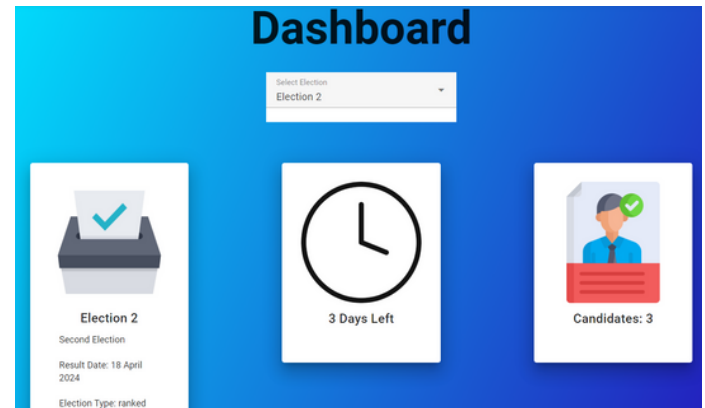
- Enter the email and password you provided in the register form to login and click the 'Login' button



The screenshot shows a login form titled "Login" on a blue background. The form has two input fields: "Email" with the value "janedoe@gmail.com" and "Password" with masked characters. Below the password field is a checkbox labeled "Show Password". At the bottom of the form are two buttons: "LOGIN" in blue and "RESET" in purple. There are also two links: "Sign Up" on the bottom left and "Forgot Password?" on the bottom right.

2. Admin dashboard

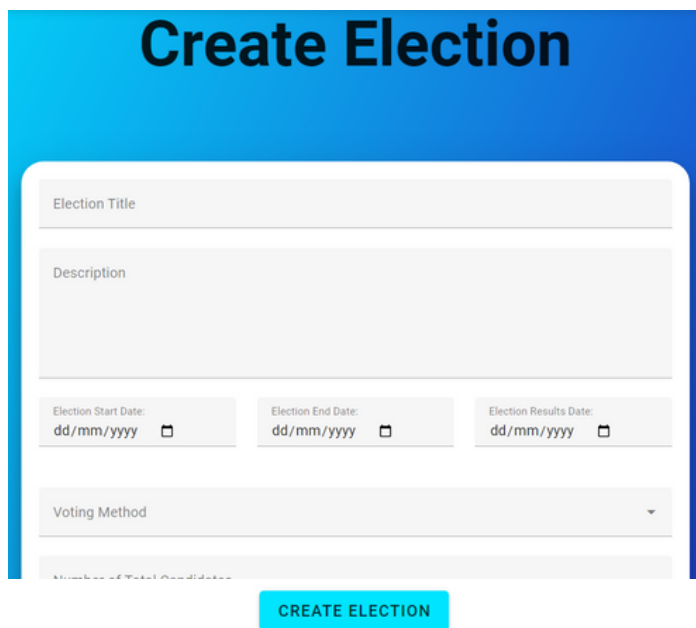
- You will automatically be redirected to the dashboard upon logging in successfully
- Here you can select an election to view its details, how many candidates are in the election and how many days are left until the end



The screenshot shows an admin dashboard titled "Dashboard" on a blue background. At the top, there is a dropdown menu labeled "Select Election" with "Election 2" selected. Below this, there are three main cards. The first card, titled "Election 2", shows "Second Election", "Result Date: 18 April 2024", and "Election Type: ranked". The second card, titled "3 Days Left", shows a clock icon. The third card, titled "Candidates: 3", shows a person icon with a green checkmark.

3. Create election

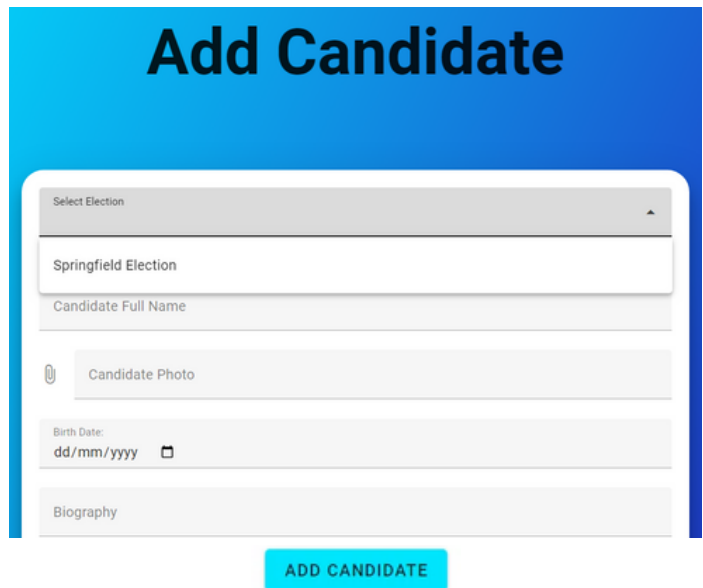
- To create an election click the add election button on the top right
- Enter the details for the new election
- Once the required details have been filled in, click 'Create Election' to create new election
- You will receive a key that will be used to publish the election, it is extremely vital to keep the key and not to share with anyone
- You will be redirected to the candidate form to add the number of required candidates for the new election



The 'Create Election' form is a white card with a blue header. It contains several input fields: 'Election Title' (text), 'Description' (text area), 'Election Start Date' (date picker), 'Election End Date' (date picker), 'Election Results Date' (date picker), 'Voting Method' (dropdown), and 'Number of Total Candidates' (text). A blue 'CREATE ELECTION' button is at the bottom right.

4. Add candidate

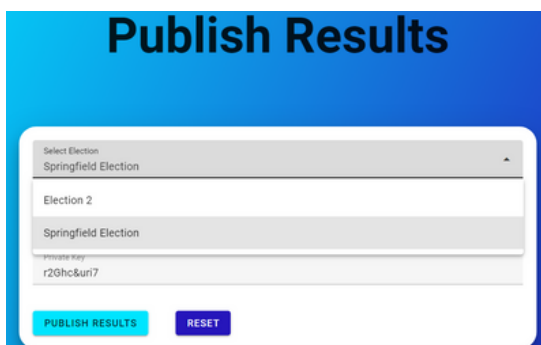
- To add a new candidate to an election, choose the election you wish to add a candidate to
- Enter the details for the candidate you wish to add
- Once the required details have been filled in, click 'Add candidate' to add the candidate to the selected election
- Repeat this process until all candidates have been added



The 'Add Candidate' form is a white card with a blue header. It contains several input fields: 'Select Election' (dropdown), 'Candidate Full Name' (text), 'Candidate Photo' (image upload), 'Birth Date' (date picker), and 'Biography' (text area). A blue 'ADD CANDIDATE' button is at the bottom right.

5. Publish results

- To publish the results of an election on the dashboard page click the publish election button on the bottom right
- Choose the election for which you wish to publish and enter the publish key you will have received via email when the election was first created



The 'Publish Results' form is a white card with a blue header. It contains several input fields: 'Select Election' (dropdown), 'Election 2' (text), 'Springfield Election' (text), 'Private Key' (text), and 'r2Ghc&un7' (text). There are two buttons at the bottom: a blue 'PUBLISH RESULTS' button and a purple 'RESET' button.

6. Logout

- To log out of the system click the logout button on the top right



Two buttons are shown: a blue 'PROFILE' button and a purple 'LOGOUT' button.