
Abstract

In online voting system people can cast their vote through the internet. In order to prevent voter frauds, we use two levels of security. A user id and password are used as the first level of security. The data entered by the user is verified with the contents of the database, if the data is correct then the face of the voter is captured by a web camera and sent to the database. The web page is designed using ASP.NET. The ASP page is then connected to the Microsoft sql server database. The ASP page is served from an IIS server. In the second level of security the face of the person is verified with the face present in the database and validated using matlab. The comparison of the two faces is done using Eigen face recognition algorithm. The scheme is based on an information theory approach that decomposes face images into a small set of characteristic feature images called 'eigenfaces', which are actually the principal components of the initial training set of face images. Recognition is performed by projecting a new image into the subspace spanned by the eigenfaces ('facespace') and then classifying the face by comparing its position in the face space with the positions of the known individuals. Then the MATLAB coding is converted into a dll file by using a deploy tool present in the MATLAB. Then the dll file is used in the ASP.NET page to call the matlab program and display the result in the web page.

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1. INTRODUCTION

ONLINE VOTING SYSTEM” (OVS) is an online voting technique. In this system, people have been in an organization. Those who participate in the election can give his\her vote online without going to any physical polling station. There is a database is maintained in which all the names of voters with complete information are store.

There has a number of election observers who have suggested introducing electronic voting election processes. A general observation is that as more business is done using electronic mediums. It should not be difficult to carry out voting using electronic equipment. Rather than turning up at the polling place on voting day to use paper and pen.

The OVS under implementation mainly addresses the voting phase. Electronic voting using the OVS should be cheaper than the present paper-based arrangement. It has led to the claim that the Internet could be used as either a replacement to attendance voting. Throughout history, election fraud has occurred in many electoral processes.

2. LITERATURE SURVEY

There are lot of practices are made to introduce the variations in electronic and online voting systems where different techniques and methodologies are used. Some of them guarantees the confidentiality and security to the system at some extent, still the voting

information and process need to be control and manage with advanced systems that will ensures and guarantees the security and privacy of voter’s and voter’s information

3. OBJECTIVE

Electronic voting systems may use electronic ballot to store votes in computer memory. When electronic ballots are used there is no risk of exhausting the supply of ballots. Additionally, these electronic ballots remove the need for printing of paper ballots, a significant cost.

4. PROBLEM STATEMENT

The concept of election verifiability through cryptographic solutions has emerged in the academic literature to introduce transparency and trust in electronic voting systems. It allows voters and election observers to verify that votes have been recorded, tallied and declared correctly, in a manner independent from the hardware and software running the election. The systems that are developed to caste the vote by means of digital approach using online portals and electronic devices use various encryption and decryption techniques to guarantee the secure data transaction.

5. SYSTEM ARTITECTURE

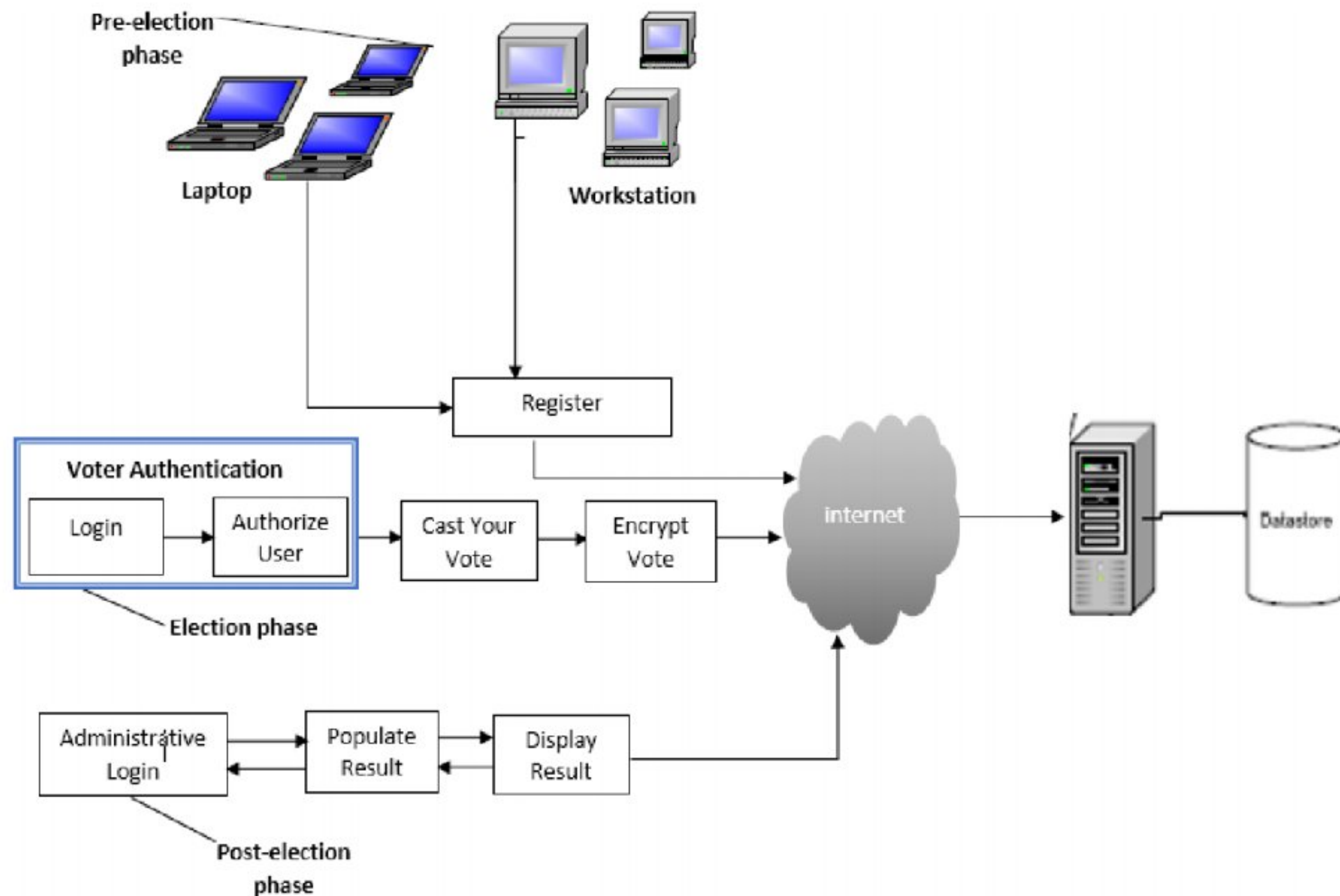
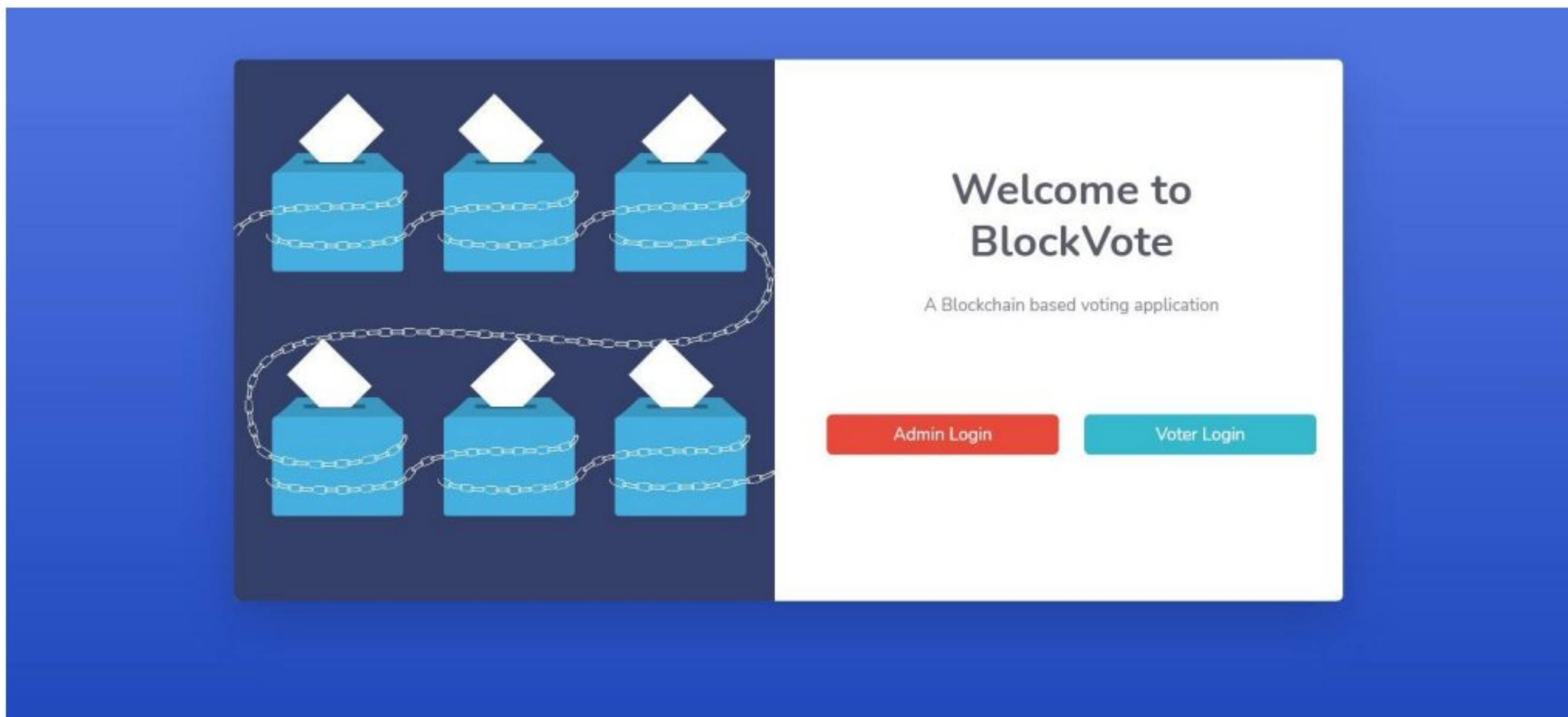


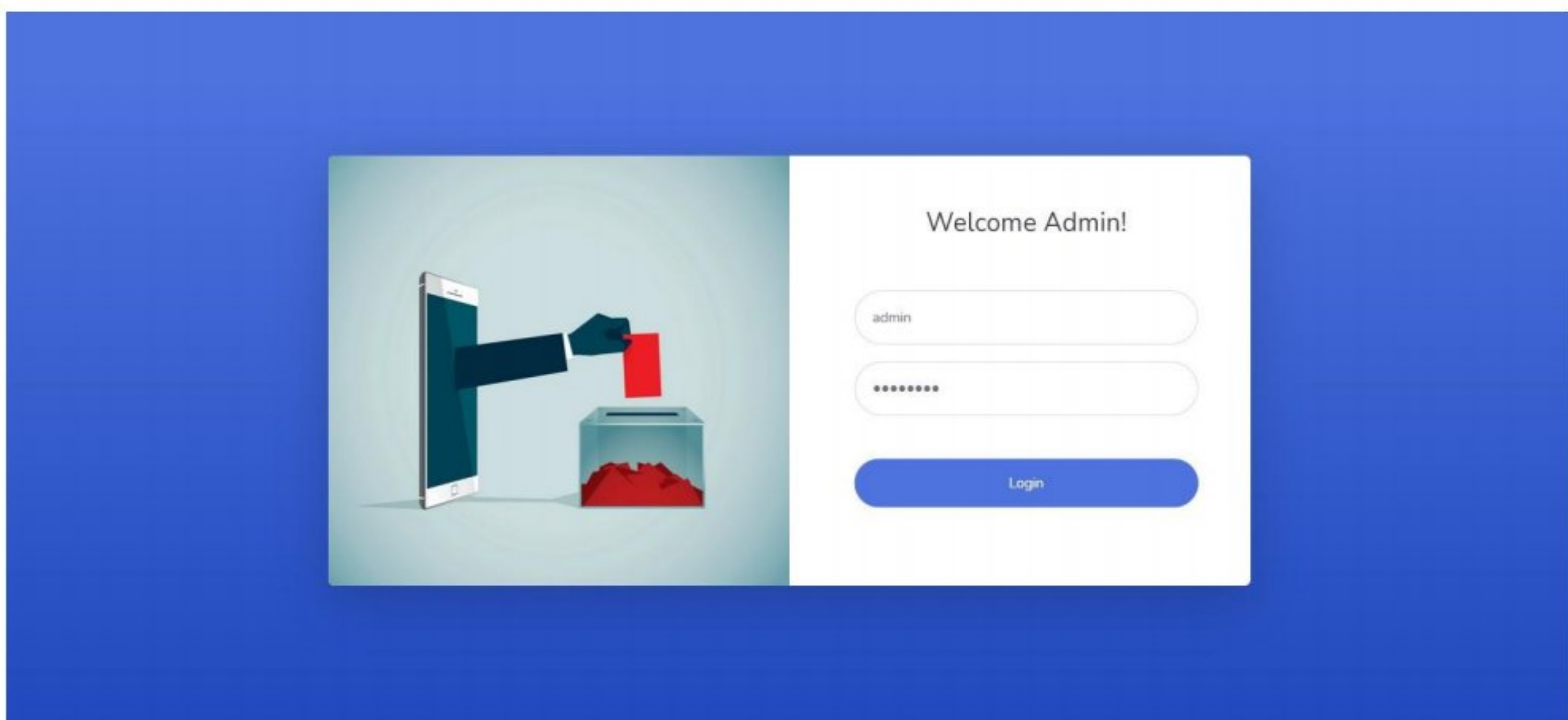
Figure 1: Architectural Design for the System

6. IMPLEMENTATION


HOME PAGE



ADMIN: LOGIN PAGE



ADMIN: DASHBOARD

BLOCKVOTE

Dashboard

VOTING PROCESS

View Candidates

Add Candidate


Results

SETTINGS

Logout

<

admin



Dashboard

Election stage has been updated successfully

✓

Candidate Registration Phase

✓

Voting Phase


Next Stage

●

Result Phase


CANDIDATES

2




VOTERS

6



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ADMIN: ADD CANDIDATE

BLOCKVOTE

Dashboard

VOTING PROCESS

View Candidates

Add Candidate


Results

SETTINGS

Logout

<

admin



Add Candidate

Fill the form to add candidate

Candidate Name

Enter Candidate Name

Party Name

Enter Party Name

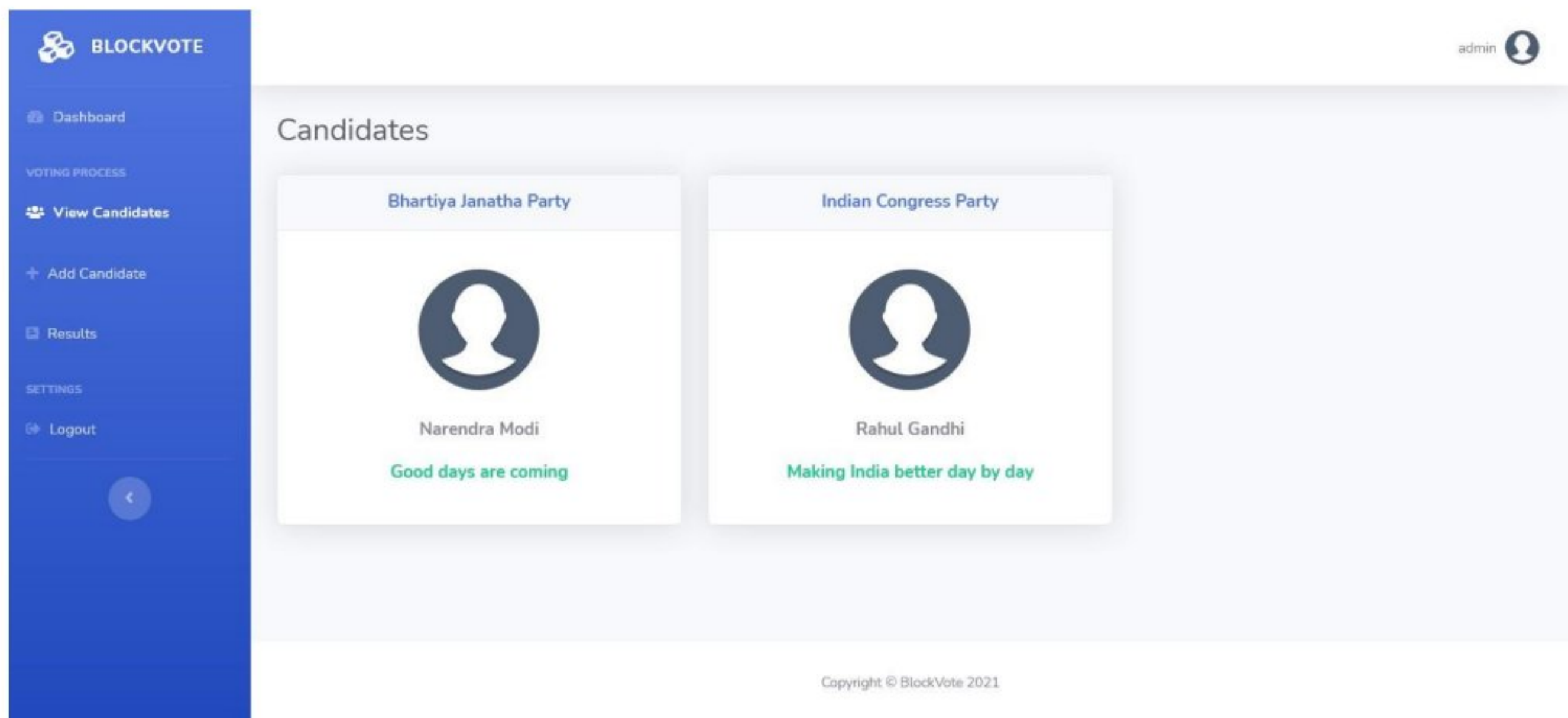
Party Slogan

Enter Party Slogan

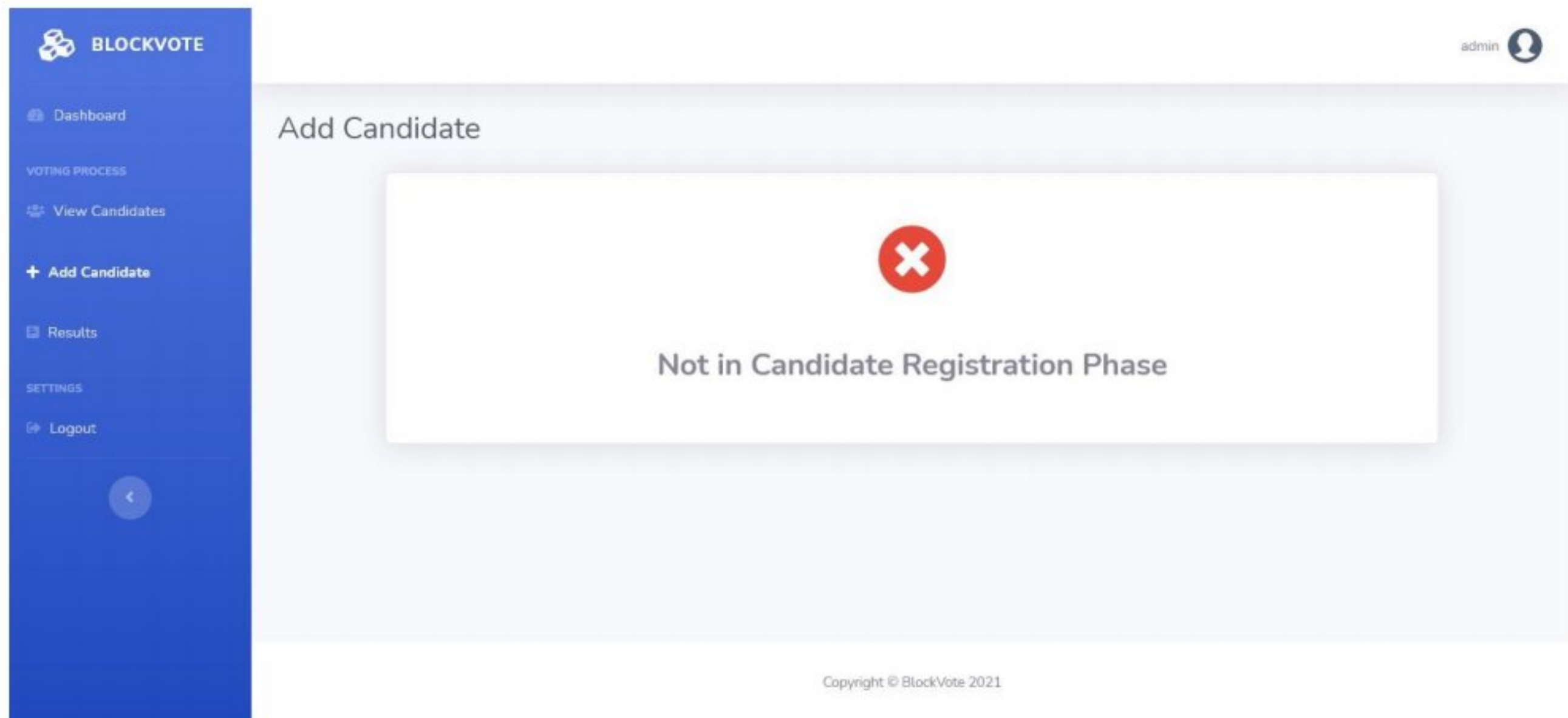
Add Candidate

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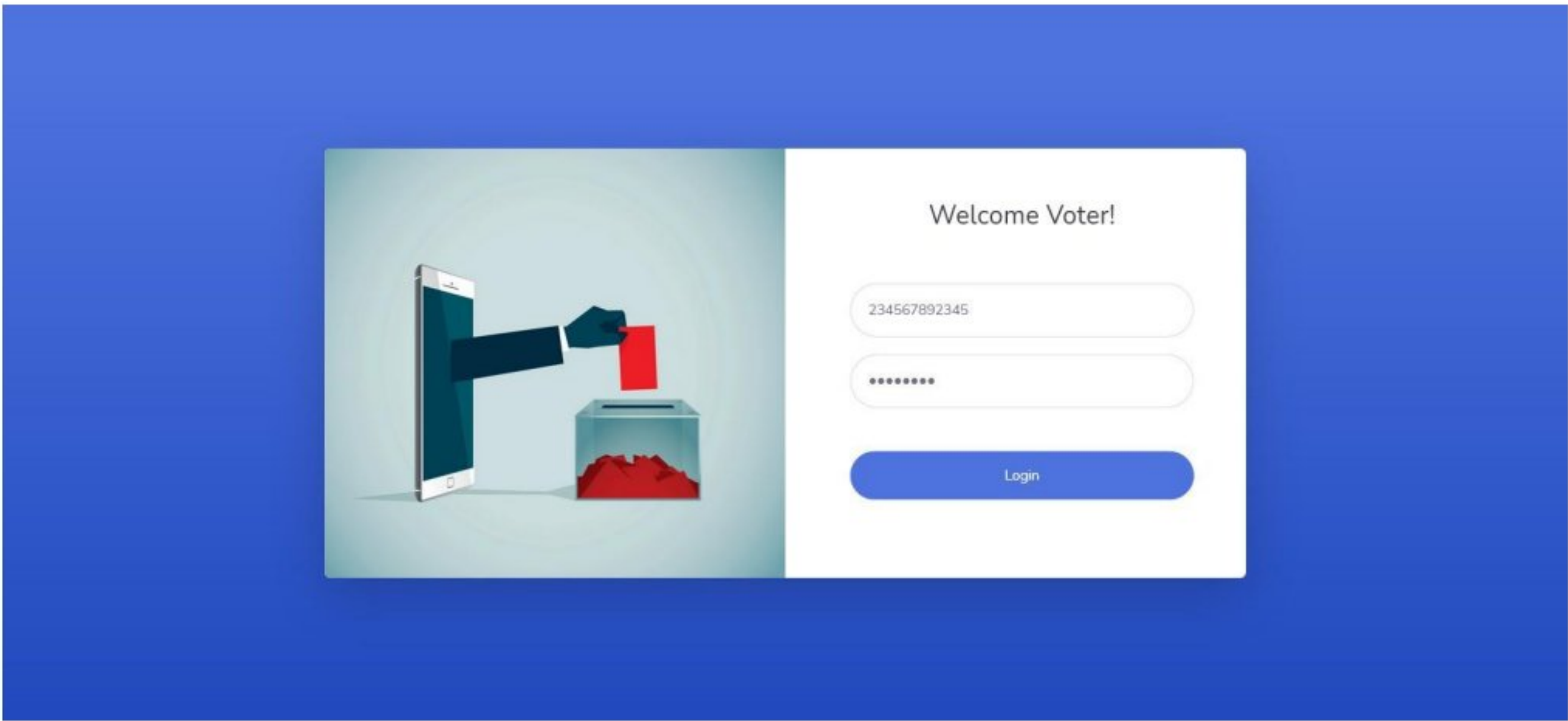
ADMIN: VIEW CANDIDATES



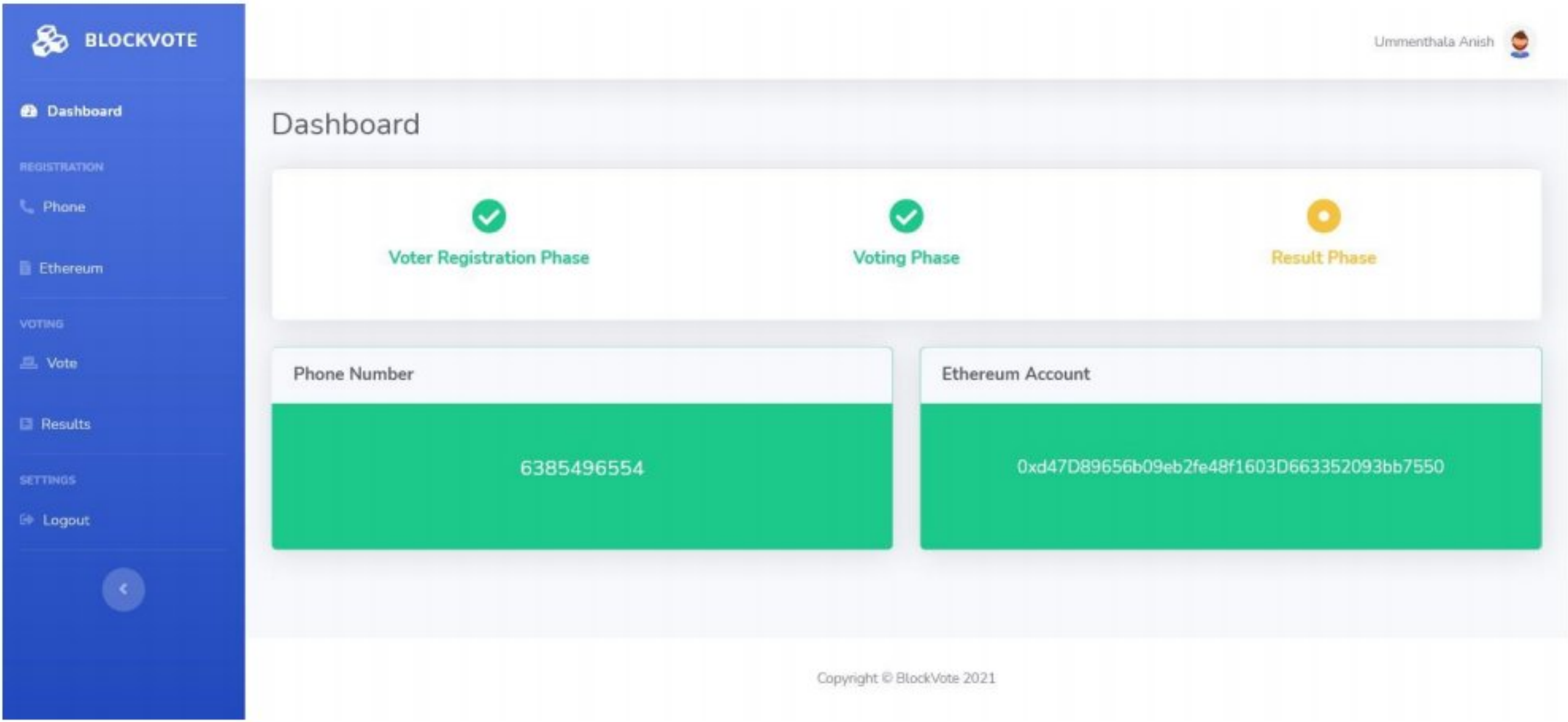
ADMIN: ADD CANDIDATE ERROR




VOTER: LOGIN PAGE



VOTER: DASHBOARD



VOTER: PHONE NUMBER REGISTRATION

BLOCKVOTE

Dashboard

REGISTRATION

Phone

Ethereum

VOTING

Vote


Results

SETTINGS

Logout

<

Ummenthala Anish



Register Phone

Add your phone number for OTP verification


Phone Number

6385496554

Add Phone number

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VOTER: ETHEREUM ACCOUNT REGISTRATION

BLOCKVOTE

Dashboard

REGISTRATION

Phone

Ethereum

VOTING

Vote


Results

SETTINGS

Logout

<

Ummenthala Anish



Register Ethereum

Add your Ethereum account

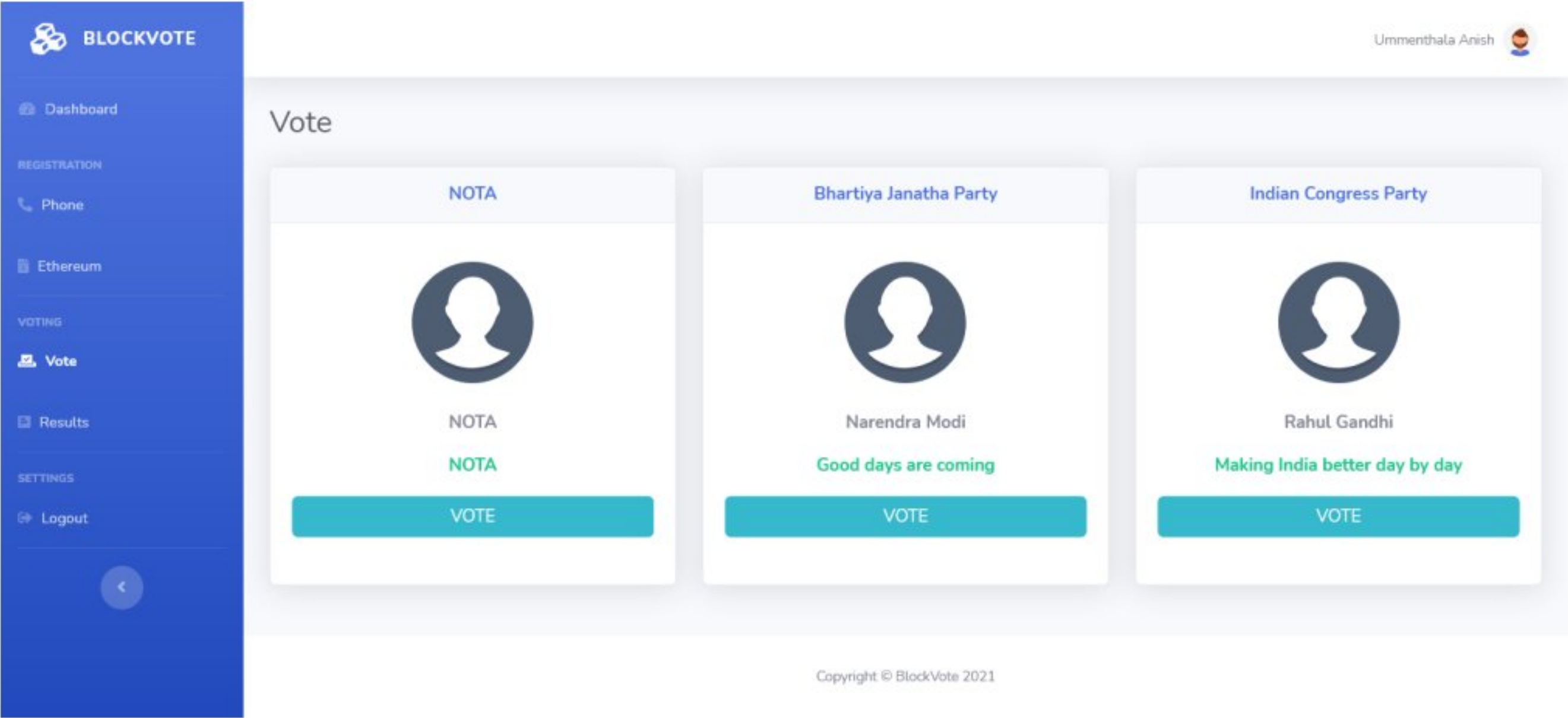
Ethereum account

0xd47D89656b09eb2fe48f1603D663352093bb7550

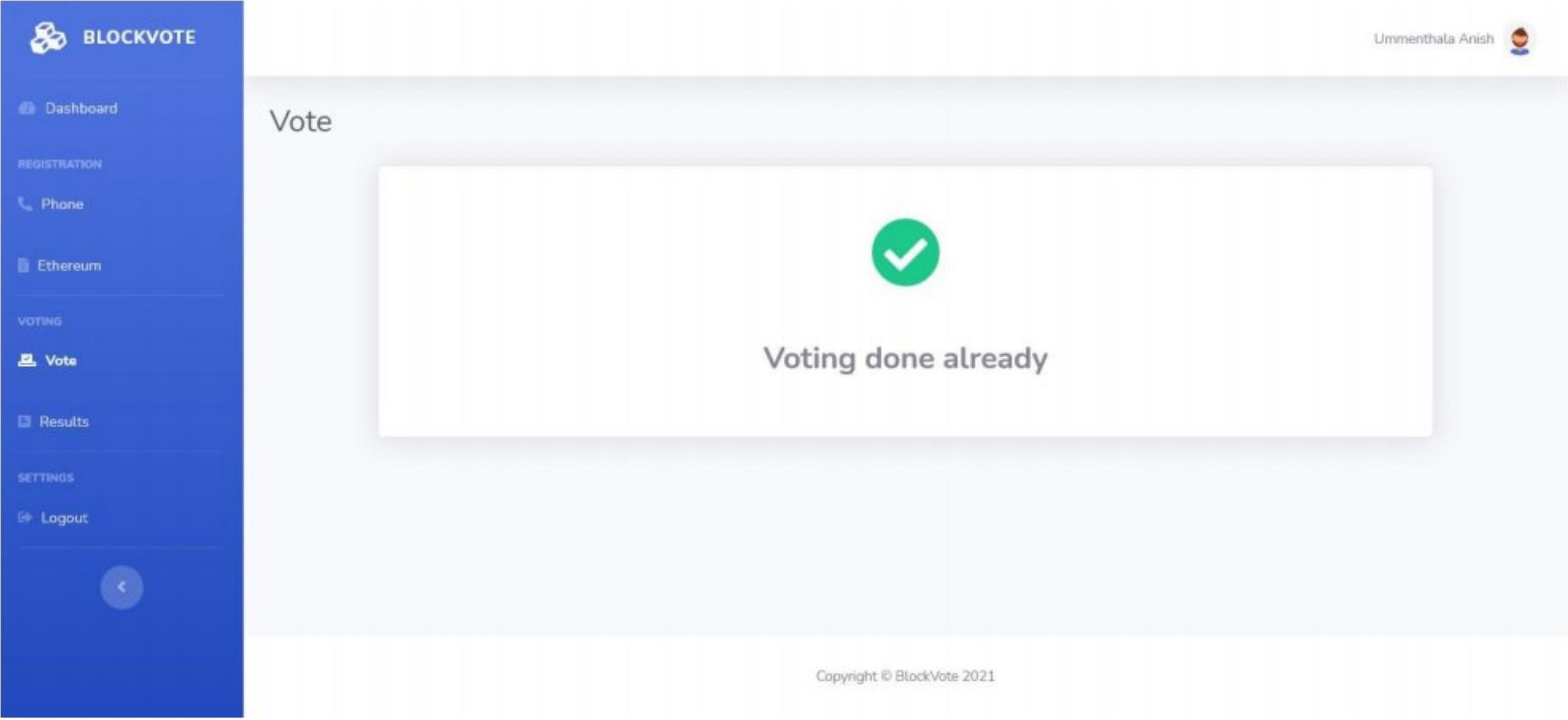
Add Account

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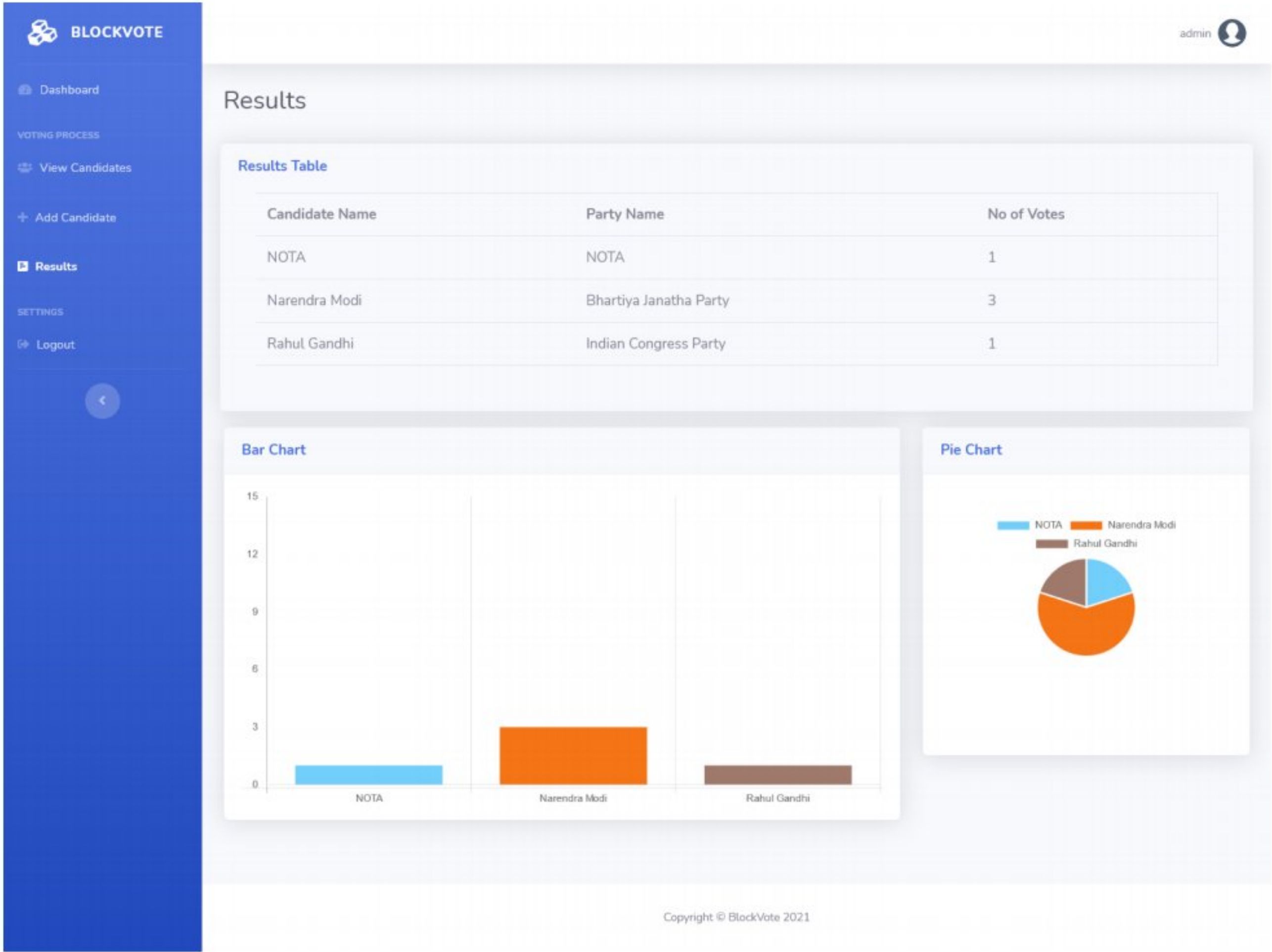
VOTER: VOTING



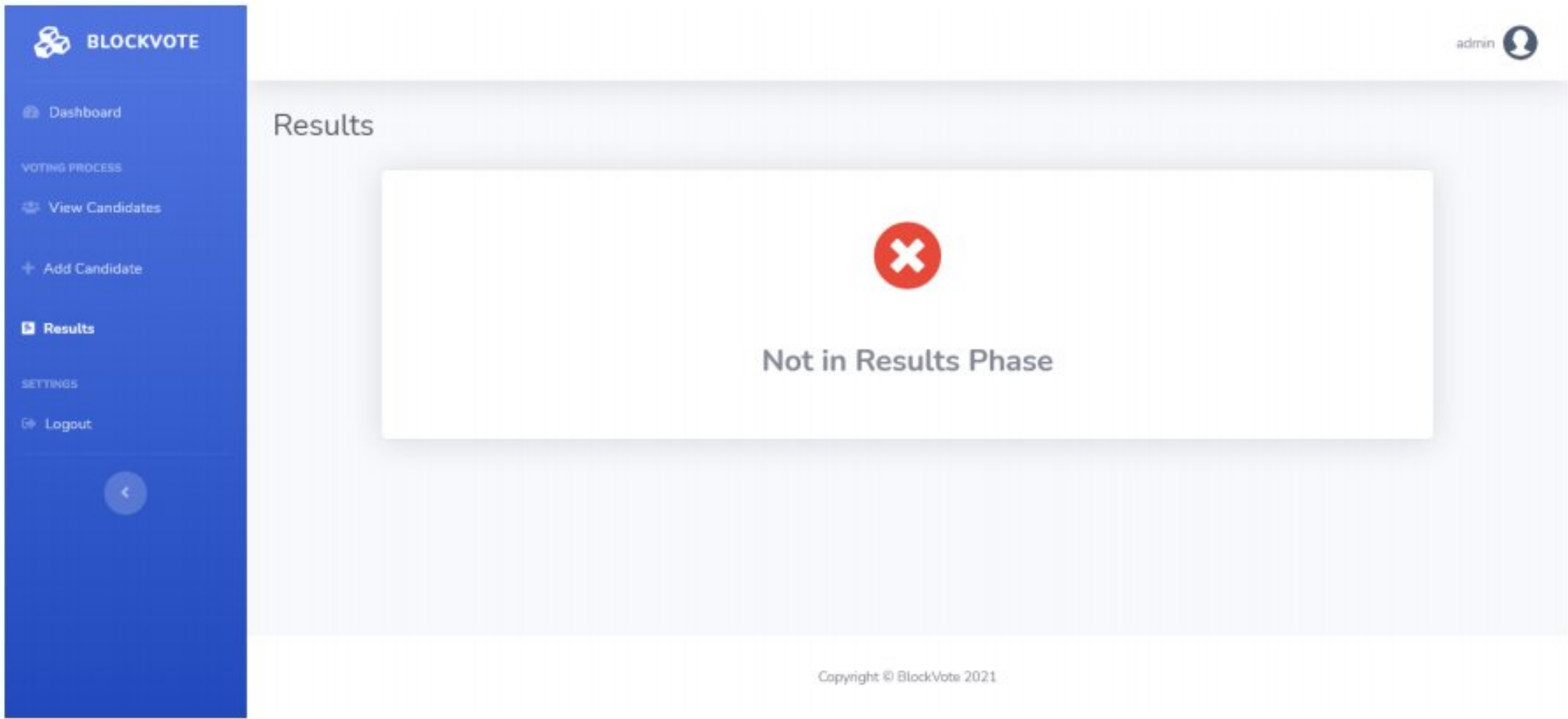
VOTER: VOTING ERROR PAGE



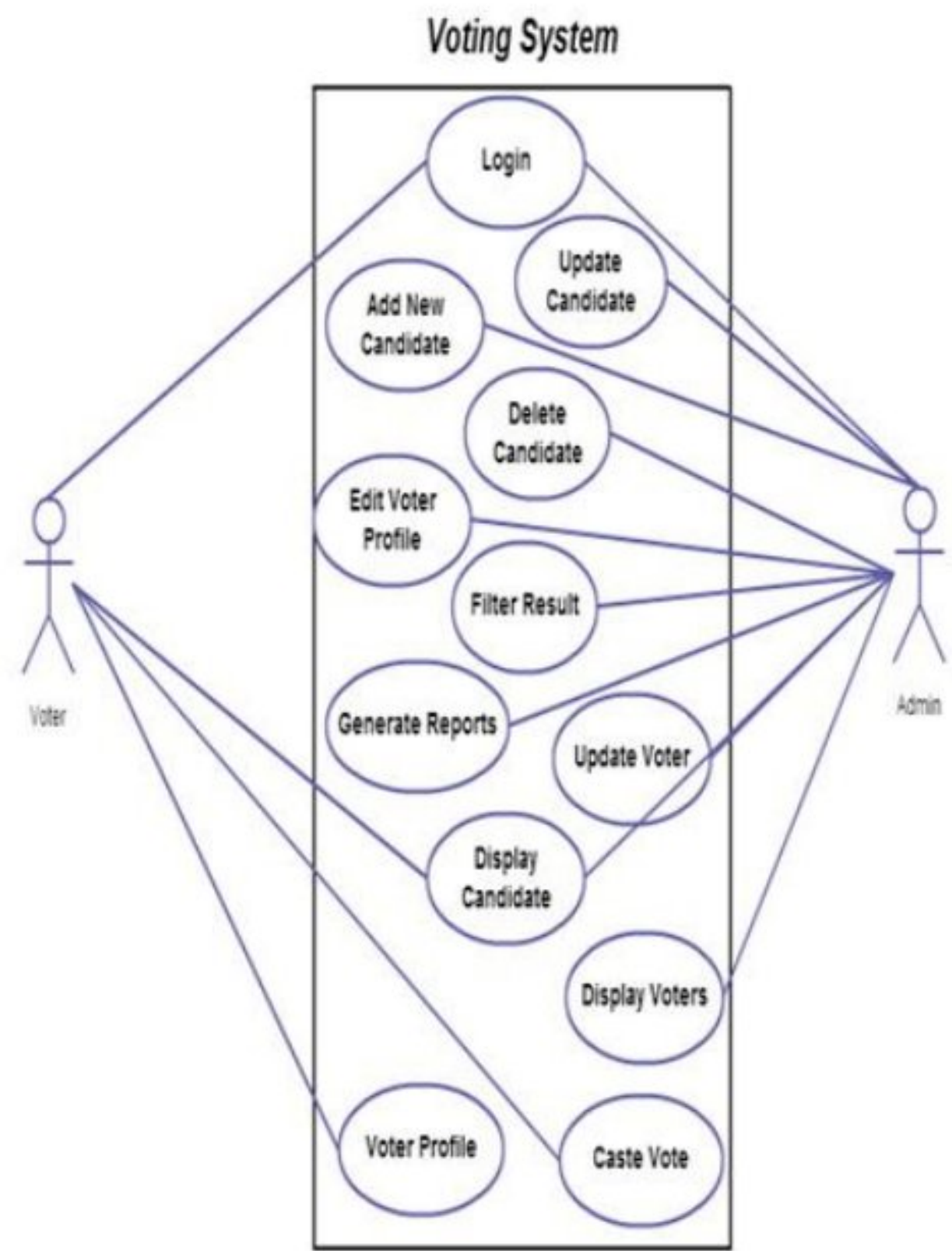
VIEW RESULTS



RESULTS ERROR



7. UML DIAGRAMS



8.CONCLUSION

In this work, we have seen various techniques and framework used for online voting. This article gives a short review on various methodologies that are used in current online voting. The paper will help to build a system that will face the present and upcoming challenges and will remove drawbacks from these previous architectures.

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