

AADHAAR Based Voting

Brijesh Chaurasia¹, Nilesh Yadav², Tabish Ansari³, Niraj Kumar⁴, Prof.Sonalii Suryawanshi⁵

¹⁻⁴Student, Department of Computer Engineering, RCOE, Mumbai, Maharashtra, India

⁵Professor, Department of Computer Engineering, RCOE, Mumbai, Maharashtra, India

ABSTRACT

The problem of voting is still critical in terms of safety and security. This paper deals with the online voting system that will help to make the voting system smart, more secure and easy to vote. This paper illustrates a system which can be linked with Aadhaar card. In the whole country Aadhaar card Number is Unique for every person and it contains biometric information of each citizens^[1]. Election is a process to select a perfect candidate for who will lead our nation. In democracy people choose their leader by giving their valuable vote. This will drastically increase the voting percentage of India. So it will be helpful in eliminating false Vote. The proposed model has a greater security in the sense that voter high security password is confirmed before the vote is accepted in the main database of Election Commission of India. After voting user want to cross check their vote for that they can confirm with reference of unique id, which was generated by ECI. In this model a person can also vote from outside of his/her allotted Constituency or from his/her preferred location^[2].

Keywords : AADHAAR ID based online election, Candidate ID, Security, Online voting system, Confidentiality, Election commission of India, Unique identification authority of India.

I. INTRODUCTION

Aadhaar number is **unique to every Indian citizen** and stores the **biometric** and **demographic** details of the individual in a **centralized database** Online voting system is a way that helps public to select their representatives and express their preferences for how they will be governed. Election process has strong media coverage, particularly if something goes wrong. In this proposed system, the Internet is changing citizen expectations around the speed and convenience with which all government services and elections should be delivered.

This system will increase the level of security and also the trust of voters^[2]. The problems of Maoist affected places for the voting has been addressed in while describe the genesis of Maoist violence and showed that public needs a more secure way of casting their vote. Online voting system definition

given in states that Online voting systems offer advantages compared to other voting processes. In this model a person can also vote from outside of his/her allotted Constituency or from his/her preferred location Online voting allows association members to access their ballots from anywhere at any time, provided they have an Internet connection. This makes casting a vote convenient and fast^[4]. With online voting there are no rejected, mismarked or invalid ballots. Results are automatically calculated, eliminating the need for manual tabulation and dreaded recounts. Computerized tabulation allows election managers to quickly announce decisions and results To make the voting system trustworthy it must have high security requirements: confidentiality, and integrity.

E-voting is implemented people would no longer need to go to voting booths to vote. People would be able to vote from home (or workplace) without

needing to go to voting booths. No more standing in long queues. No more time-consuming voter ID checks. Just open app, anywhere, validate, and vote^[4].

II. SIGNIFICANCE OF THE SYSTEM

The paper mainly focuses on online voting using UID of Aadhar card. User can vote irrespective of their location.

It also includes different chapters that will give the brief information about the working of the system.

III. SALIENT FEATURES

- a) Our proposal of Online Voting System enables a voter to cast their vote through internet without going to voting booth.
- b) Eliminating queues and time saving.
- c) Proxy vote or double voting is not possible because of UID.
- d) Fast to access, highly secure system, easy to maintain all the information of voting.
- e) Highly efficient and flexible.
- f) Easy to use.
- g) Redundant User Interface
- h) Online Voting System does not require any geographical proximity for example soldiers.

IV. METHODOLOGY

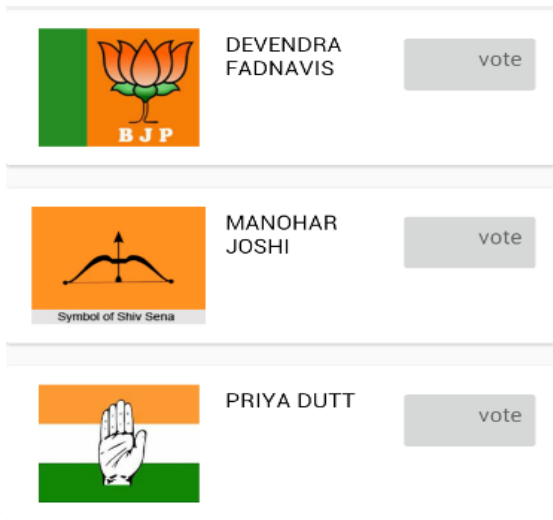
The methodology for running a quality voting study on human machine interaction includes the following^[6]:

VOTERS:

1. Replicate voting experience by running the experiment at a site that is used for voting in State and Federal elections.
 - a. In our System we will used ANDROID STUDIO WHICH consists of following languages and tools
 - i. ANDROID PROGRAMMING
 - ii. PHP at server side

- b. Layout and lighting of voting stations match the regular poll environment.
2. Replicate conditions that exist in voting.
 - a. Hours are consistent with regular election hours.
 - b. Days are consistent with regular Election Day.
3. Training of voters is consistent with election voting training, which is often minimal at best.
 - a. Voting educational materials are provided that replicate standard materials that voters receive.
4. Poll Workers
 - a. Same Poll worker personnel used as regular elections
5. Training replicates standard (sub-par) poll worker training.
 - a. Pay and hours the same as in election;
Standard precinct rate used.
6. Subjects
 - a. Registered voters, who have voted once before.
 - b. If possible, try to match the demographic of town that the mock trial is taking place.

7. Voting page



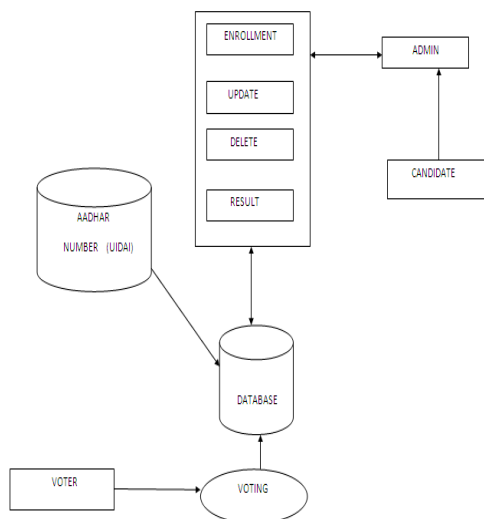
ADMIN:



Admin will do the following things

- a. Admin will add/delete the list of candidate
- b. Admin will display the result

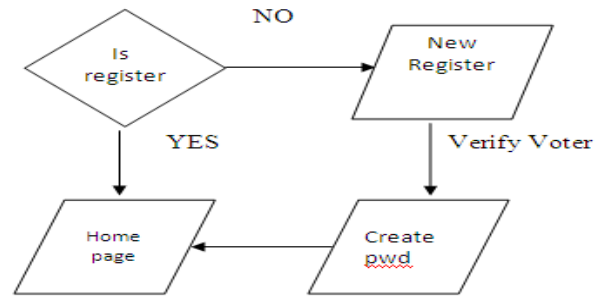
System Overview:



System Architecture

Step 1: Voter registration

In Online Voting System, Election Commission of India will be able to access User's data from UIDAI (Unique identification authority of India). Initially, Voter has to enter his/her Aadhar UID to get register with the system. As voter enters his/her UID, the system will generate an OTP to the user registered number. After receiving OTP, User has to enter that OTP to get authenticated with the system. After entering OTP, System will display his/her profile. After which, user have to Verify themselves.



Block Diagram for Registration

Step2: Candidate registration

Candidates who are Applying for elections have to register themselves by submitting their application to Election Commission of India. After Approval from ECI, they will update candidate's profile on Online Voting System.

Step 3: Check validation

Users will register by using their Aadhar UID. After successful registration, system will cross check the user's entered information with the one that is already linked with Aadhar UID.

Step 4: Election status

On the day of Election, Voters will get notifications about Election. Those who have not voted will get frequently notification from the Election Commission of India. And the one who already voted will get the updated news about current status from ECI.

Step 5: Voter Login

After successful registration, Voter have to login to the system by entering his/her UID and the password which he/she had created at the time of verification.

Step 6: Cast a vote

After login successfully, user can view profiles of candidates and proceed for voting. Once voted, user cannot alter or change their vote. And their perspective vote will be stored in Database of Election Commission of India.

Step 7: Cross checking of votes

After voting gets over Election Commission of India will generate a report of how much people has voted and. User can cross check it votes with reference to id which was generated by Election Commission of India

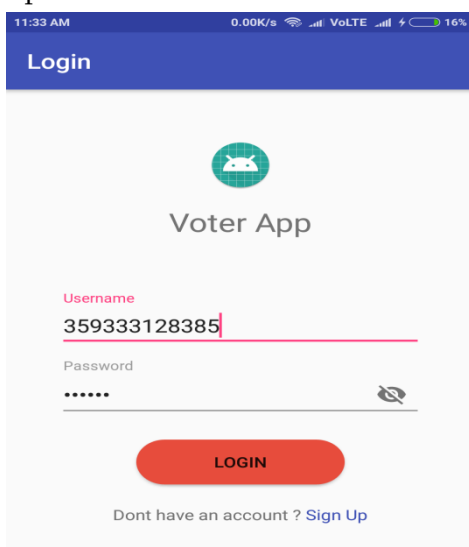
Step 8: Result declaration

Final result will be generated by ECI, by indicating the percentage of vote to a particular candidate. Also result will be based on location of voter and their respective age.

V. RESULTS

Login

Registered users have to login first by entering their UID and password.

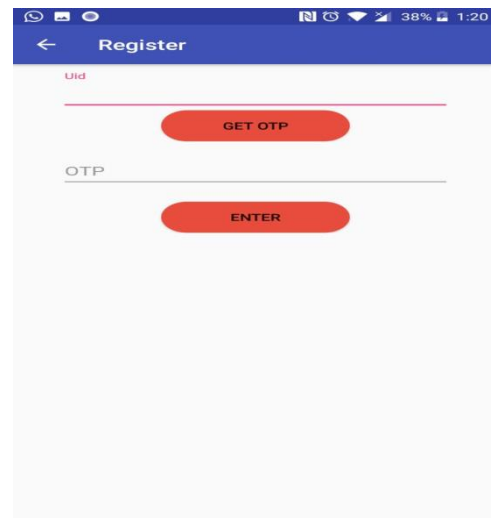


Register

If user has not register, then first he has to register

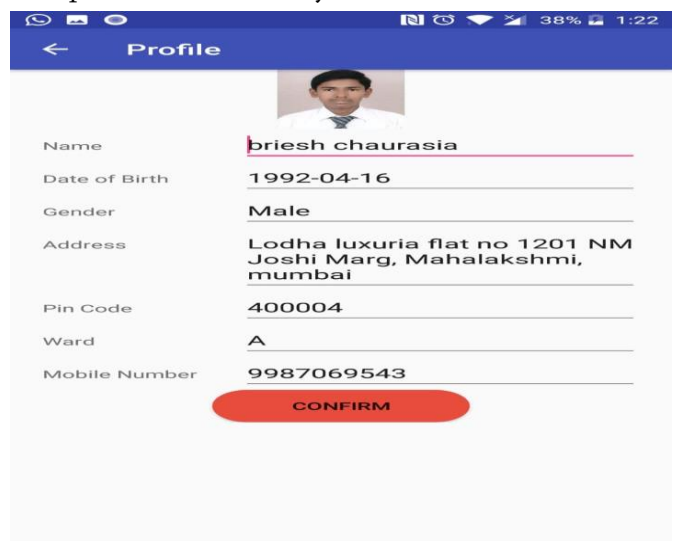
himself/herself using UID.

Then OTP will be generated to make registration more secure.



Voter Profile

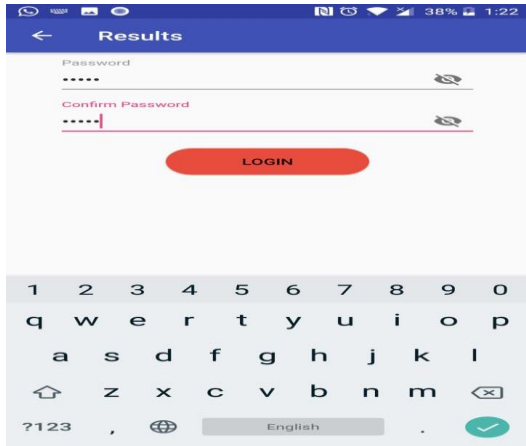
After successful registration, system will display the user profile to cross verify the user information.



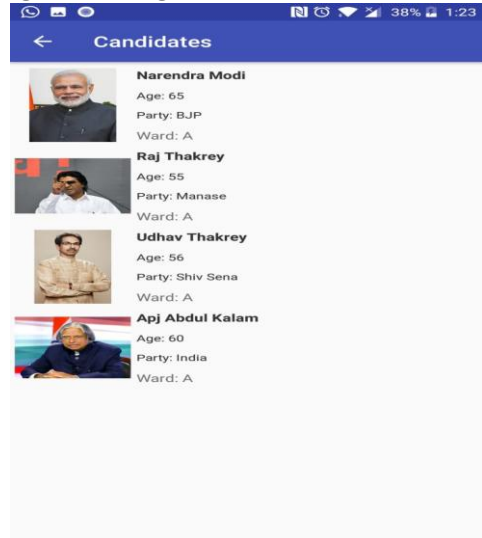
Set Password

After confirming themselves, user has to create their

own secured password.



standing on voting. The user can vote her party



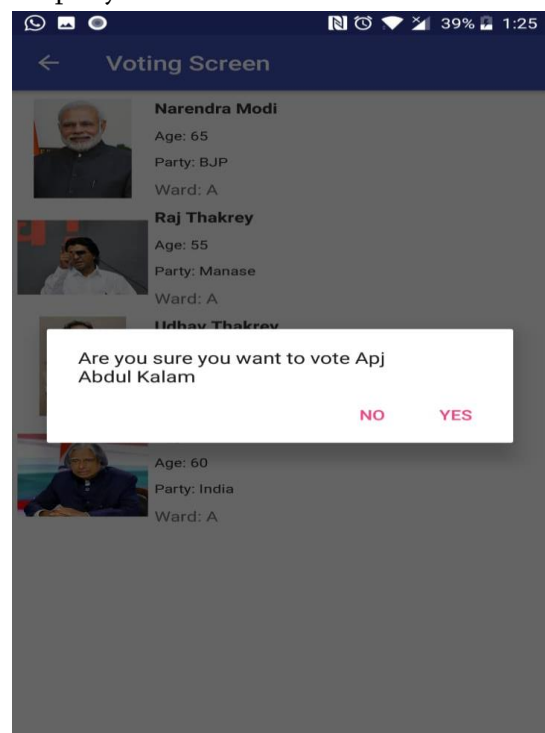
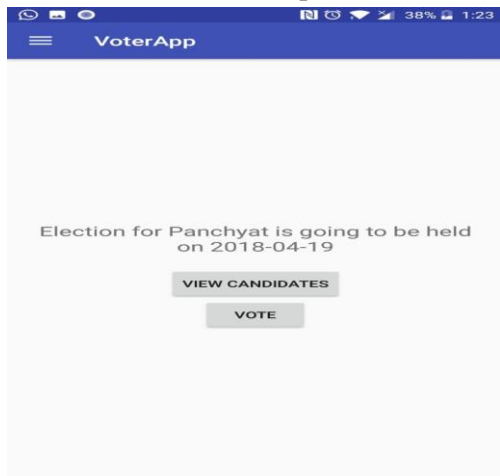
Home Page

Home contains 2 options:

1. View candidate: To view candidate list who are standing for election.
2. Vote: To vote their respective Candidate.

Confirm Vote

Confirmation message will arrive to vote your favorite party.

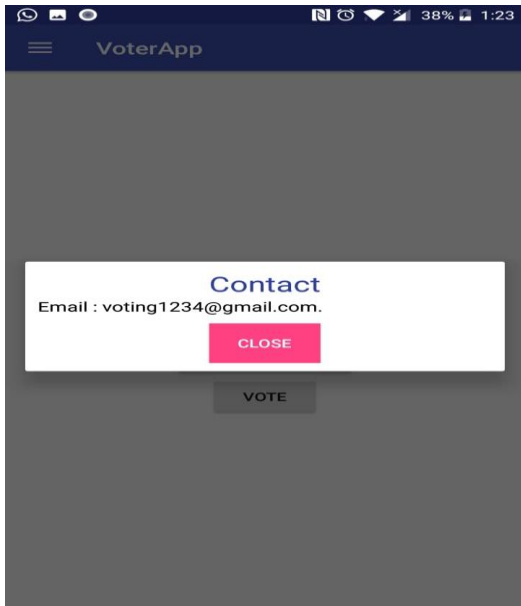


Candidate List

The user can see how many candidates are

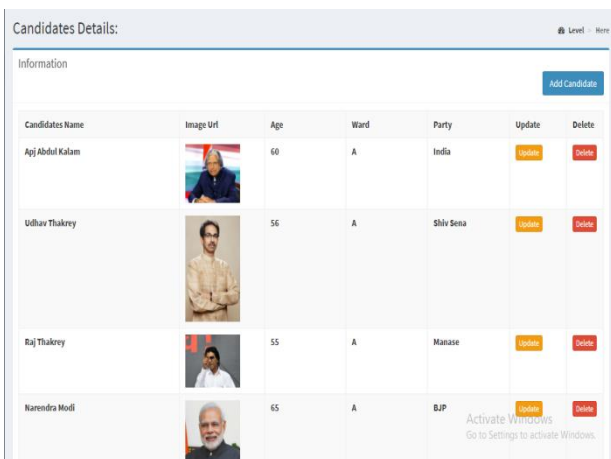
CONTACT US

If the user has any problems and issue then you can contact us.



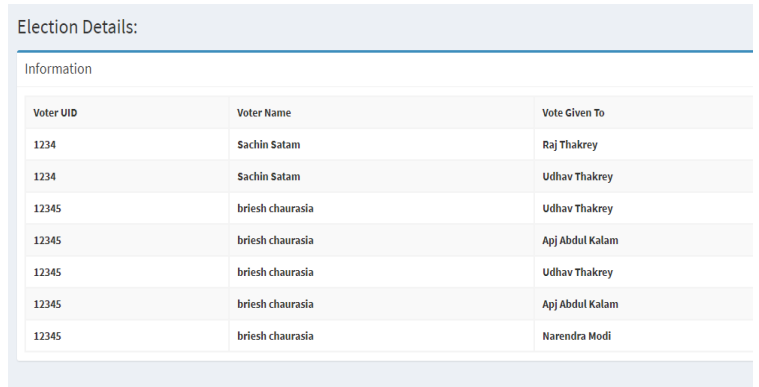
Candidate's details

Admin can add, delete and update the candidate details.



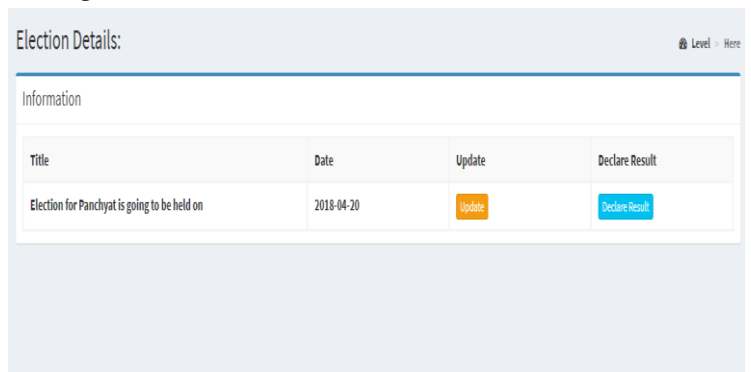
Election detail

Only admins can see how many votes each candidate has received. Here admin is cross verifying the votes.

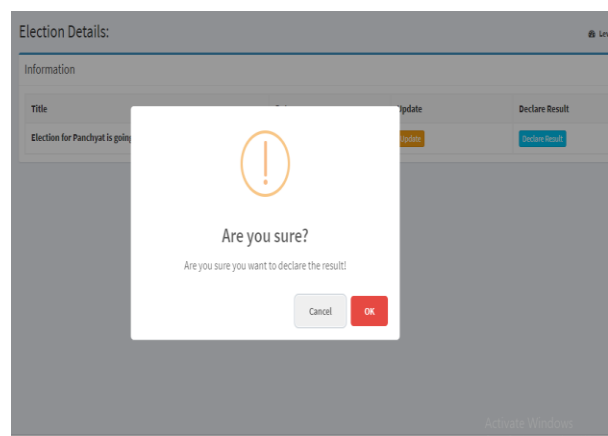


Declare Result

Voting is done then admin is declare the result.

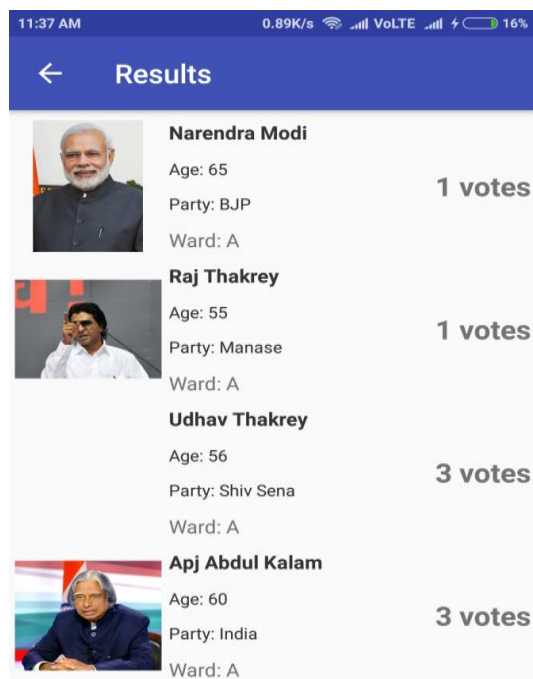


Confirmation message will arrive to admin. And admin will declare the result.



Voting Result

After voting is done successfully. Then admin is declared the result and user can see which party won the election



VI. CONCLUSION AND FUTURE WORK

Our proposed system has the capability to reduce the unwanted human errors. In addition to its reliability, online voting can handle multiple modalities and provide better scalability for large elections online voting is also an excellent mechanism that does not require voter location proximity. It leads to the easier verification of voters and candidates. In the proposed framework, we have tried to build a secure online voting system that is free from unauthorized access while casting votes by the voters. The server aspects of the proposed system have such distribution of authority that server does not enable to manipulate the votes. It is expected that the proposed online voting system will automatically increase the transparency.

VII. ACKNOWLEDGEMENT

We would like to express our deepest appreciation to all those who provided us the possibility to complete this paper. A special gratitude we give to our final year project guide Prof. Sonalii Suryawanshi whose contribution in stimulating suggestions and encouragement helped us to coordinate our project especially in writing this project paper.

Last but not least, many thanks go to the head of the project Prof. Sonalii Suryawanshi who have invested her full effort in guiding the team in achieving the goal. We have to appreciate the guidance given by other supervisor as well as the panels especially in our project presentation that has improved our presentation skills thanks to their comment and advices.

VIII. REFERENCES

- [1]. Using Biometric Fingerprint and Aadhaar Card", IJCAT International Journal of Computing and Technology, Volume 1, Issue 4, May 2014 ISSN: 2348 – 6090.
- [2]. "The Design of an Electronic Voting System", Research Journal of Information Technology 3(2): 91-98, 2011 ISSN: 2041-3114.
- [3]. Ankit Anand¹, Pallavi Divya², "An Efficient Online Voting System", Vol. 2, Issue.4, July-Aug. 2012, pp- 2631-2634.
- [4]. The Design and Development of Real-Time E-Voting System in Nigeria with Emphasis on Security and Result Veracity", I. J. Computer Network and Information Security, 2013, 5, 9-18 Published Online April 2013 in MEC. 5. A. Aviv, P. Cerný , S. Clark, E. Cronin, G. Shah, M. Sherr, and M. Blaze. Security evaluation of ES&S voting machines and election management system. In Proc. USENIX/ACCURATE Electronic Voting Technology Workshop (EVT), San Jose, CA, July 2008.
- [5]. K. P. Kaliyamurthie, R. Udayakumar, D. Parameswari and S. N. Mugunthan, "highly secured online voting system over network", 4833 Indian Journal Science and Technology Print ISSN: 0974-6846 Online ISSN: 0974- 5645 Vol 6 (6S) May 2013.
- [6]. Ted Selker, Elizabeth Rosenzweig, Anna Pandolfo, "A Methodology for Testing Voting Systems" Journal of Usability Studies, Vol. 2, Issue 1, November 2006.