# Referendum Using Android Application

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## ABSTRACT

Previous voting process, voting environment is troublesome because of disinclination of voters to visit booth. In this paper the voter can vote from anywhere any constituency of India. This paper includes the overall technical idea behind using Aadhar card for e-voting. By scanning the QR code in the Aadhar card the voter is allowed to cast their vote. By using the unique user id and password one voter can only post one vote for an election. The user can change the nominees ballot several times before going to yield the vote. Each and every vote casted is stored in the database for the respective argument. At last of the voting process the server counts the total votes and generates a brief report of it to the admin. Thus the referendum using android application helps every citizen to participate in the election.

Keywords: Aadhar card, citizen and database.

## 1. INTRODUCTION

The goal of ballot vote is to allow the citizen to implement their rights to express their choices regarding specific issues, pieces of legislation, citizen initiatives, constitutional amendments, recalls and/or to choose their government and political representatives. To allocate the exercise of this precise, more or less all voting systems around the world include the subsequent stepladder: voter recognition and verification, voting and recording of votes cast, vote including, publication of election results. At present the voting system the citizens should confirm his voter ID card whenever a personality goes to the booth to poll one's vote. This process could be a time consuming method and we can reduce proxy votes.

We have five phases for registering the vote. At the time of voting in the elections, the QR code Scanner will be used to decode the enrollment ID printed on the Aadhar card in which our database is already stored/registered. Then it drives the next OTP and voter id authentication stage. The authentication can be done using OTP generated by admin during the election time. If Aadhar card id was matched in data base which allows the authenticated voters to vote on election. If the user successfully entered the OTP, the voter redirected to entering the voter id for choose candidates to vote. The voter id also stored in database for authentication. At a time of voting the voter id also matched in database then only we can vote. Then we have to select the particular candidates whom we are electing. If we done all this procedures sequently then we receive the message that we have completed successfully.

This paper is to create an android application for which voting can be performed. Also it will help to swipe out defrauding of the traditional voting system which involves voting by multiple votes cast by the user. This attitude is applied during the course of process, which helps to reduce the probability of hacking and other attacks and frauds occurring in previous method of electronic voting machines and manual voting process. There is lot of methods to avoid fraudulence in referendum, but we are not able to wipe out it completely. This paper will give solutions for the above mentioned problem.

## 2. EXISTING SYSTEM

Electronic Voting Machines ("EVM"), Idea invented by the Chief Election Commissioner in 1977. Now manufactured by the above two undertakings. The machines consists of two units,

    i) Control entity
    ii) Balloting division

The two units are joined by a five-meter cable. The Control Unit is with the Presiding Officer and the Balloting Unit is placed inside the voting compartment. There are many types of consequences with EVM which is currently in use they are:

*Accuracy:* It is not possible for a vote to be altered e laminated the invalid vote cannot be counted from the ultimate total.

*Equality:* It permits only qualified voters to vote and, it ensures that eligible voters vote only once.

*Security Problems:* One can change the program installed in the technology and corrupt the results after the polling. By replacing a small part of the machine with a look alike component that can be silently instructed to steal a percentage of the votes in support of a chosen candidate. These commands can be sent wirelessly from a portable phone.

*Illegal Voting (Rigging):* The very commonly known problem Rigging which is faced in every electoral formula. One candidate casts the votes of all the members or few amounts of members in the electoral list criminally. This results in the loss of votes for the other candidates participating and also increases the number votes to the applicant who performs this achievement. This can be done externally at the time of voting.

*Privacy:* Neither authority nor anyone else can link any secret ballot to the voter

*Verifiability:* Independently verification of that all votes have been counted correctly.

*Resistance:* No electoral entity (any server participating in the election) or crowd of entities, running the election can work in a scheme to introduce votes or to prevent voters from voting.

*Availability:* The system works accurately as long as the poll stands and any voter can have right to use to it from the creation to the end of the poll.

*Resume Ability:* The system allows any voter to break off the voting process to resume it or restart it while the poll stands. The active elections were done in habitual way, using ballot, ink and tallying the votes later. But the proposed system prevents the election from being accurate.

*Drawbacks*
1) The person has to wait in the queue for long time.
2) During voting the citizen has to follow certain rules and regulations.
3) There is a more possible occurrence for fake poll.

## 3. PROPOSED SYSTEM
In proposed system, the voter can vote easily by online voting. In this paper security is provided by Aadhar id, and OTP. The voter information such as name, address, mobile no, Aadhar id, etc., are already stored in database. While voting Aadhar id should match with details in Database. If the id is valid, then the OTP will be generated to the admin for choosing the candidate to vote and also verify the details in database.

*Securities of android Voting system*
The main goal of a secure android voting is to ensure the privacy of the voters and of the votes. A secure online voting system are satisfies the following desires,

*Eligibility:* only votes of genuine voters shall be taken into account.

*Anonymity:* votes are set secret.

*Accuracy:* cast secret ballot cannot be transformed. Therefore, it must not be promising to delete ballots nor to add ballots, once the election has been stopped.

*Fairness:* partial tabulation is impossible.

*Vote and go:* once an elector has casted their vote, no additional action earlier to the end of the election.

*Public verifiability:* The whole voting process is kept secret and the no one will be allowed to access the details in the database.

All the voters and candidates must register first and then they will be allowed to vote, to choose their leader. By using the user name and password generated by government election committee they will be login to only voting system. This online voting system is a system by which any Voter can use his/her voting rights from anywhere in country.

The online voting system contains: 1) Voters details in database. 2) Candidates details in database. 3) Voters and candidates ID and password. 4) Collection of total number of votes. The proposed online voting system can be defined using four phases: 1) Registration phase. 2) Authentication phase. 3) Voting phase. 4) Counting phase.

**Advantages**
1) Voter can vote anywhere in India.
2) Due to this technology the user can consume his time.
3) There is no possible occurrence for proxy vote.

## 4. ARCHITECTURE
The citizen should register first and then they can cast their vote to choose their nominees. After login to android voting system by using user name and password generated by government election committee. In this methodology the voter can change their admin before submitting the voting process.
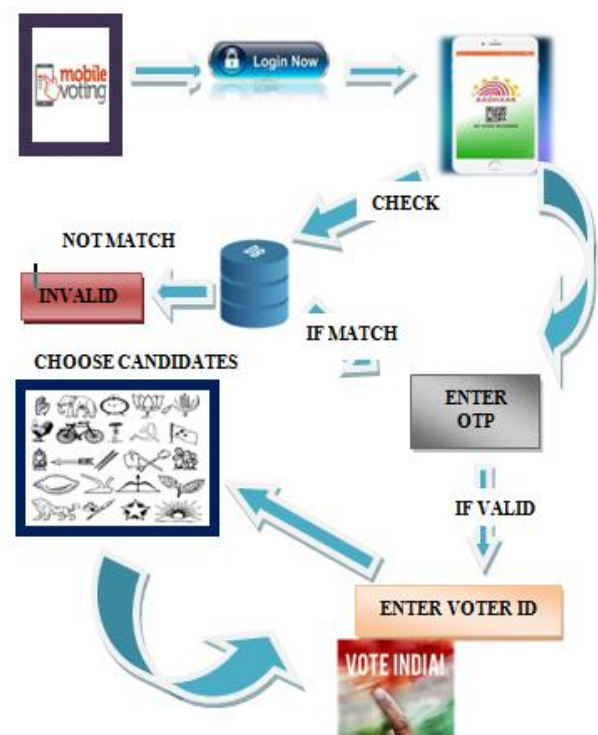


Figure. Basic Architecture

## 5. MODULE DESCRIPTION

### Gather voter information
The election committee employees are responsible for gathering information of the peoples who are eligible to vote for an election. The voter information contains voter id, Aadhar id, voter name, gender, age, address, city, state, etc.

### Generate username and password
Government election committee generates username and password to the voter who is eligible for voting. The voters are login to the voting application by using the username and password.

### Scanning process
After successfully entering the username and password, the voter can scan the Aadhar card for an authentication process. If details are matched with the details already stored in the database. Then the OTP is generated to the voter mobile device. Once the OTP is generated the voter can enter to the next page of the online voting system.

### Enter voter id
If the voter successfully entered the OTP number then only voter can move to the voter id verification page. This page contain voters voter id which is already stored in database. The voter entered Aadhar id should be matched in database value then only we can choose the candidates to vote.

### Select candidate
The valid voter only can select the candidates to vote in the android voting system. In this applications, there are differed ways are used to validate the valid and authorized voter by scanning Aadhar id, OTP and voter id of the voter.

### Vote
The voter can vote anywhere in the India through this application. In this application, the voters select any one candidate and then enter the vote.
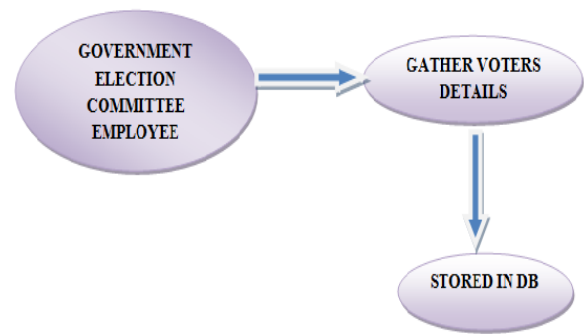
### One Time Password (OTP)
A one-time password is a type of code word that is valid for only one use. It is secure method to provide access to an function or perform a transaction only one time. The password becomes invalid after it has been used and cannot be used again.

An one time password is a security method that provides protection against various password based attacks, specially password sniffing and replay attacks. It provides more enhanced protection than static passwords, which remain the same for multiple login sessions.
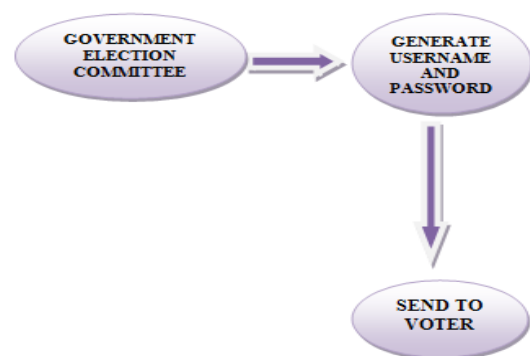
One time password works through uncertainty algorithms that generate a new and relaxed password every time they are used.

The algorithm forever uses random characters and symbols to create a password so that a hacker/cracker cannot estimate the upcoming password.
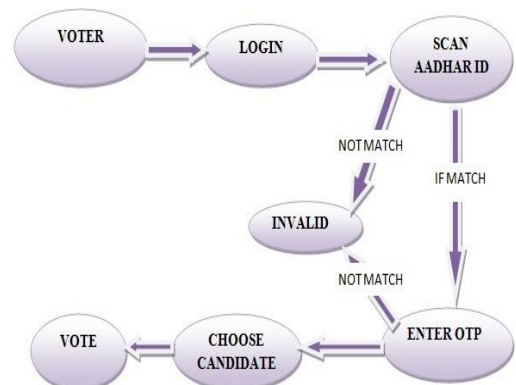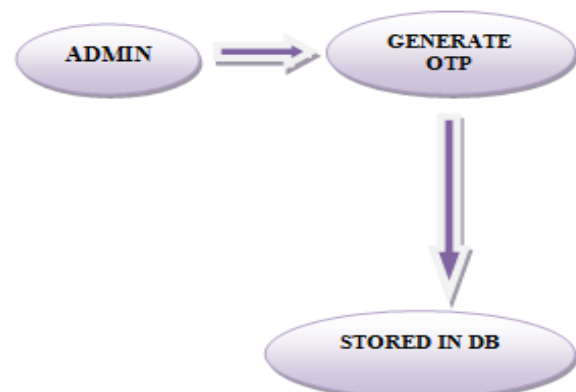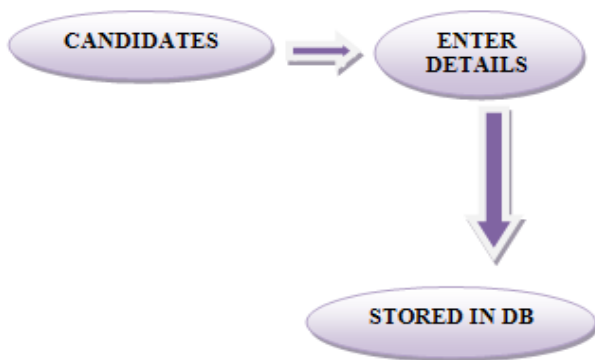
### LEVEL 0



### LEVEL 1



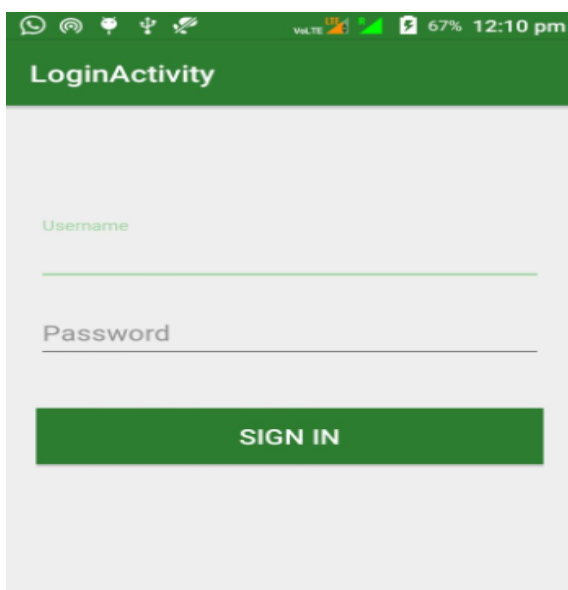### LEVEL 2



### LEVEL 3

*LEVEL 4*



Fig.3. Simulated output of scanning process

## 6. SIMULATION OUTPUT



Fig.1. Simulated output login page
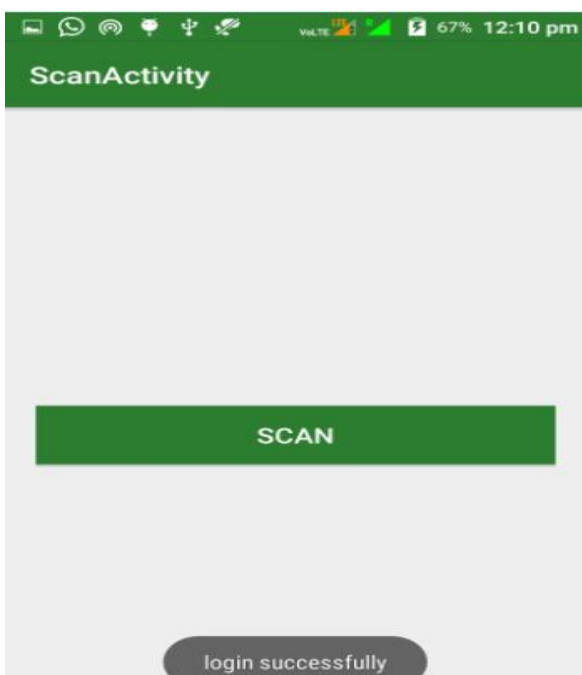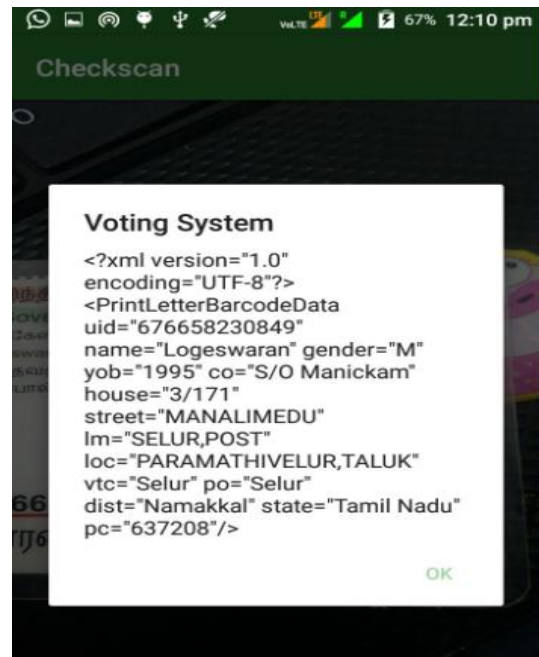


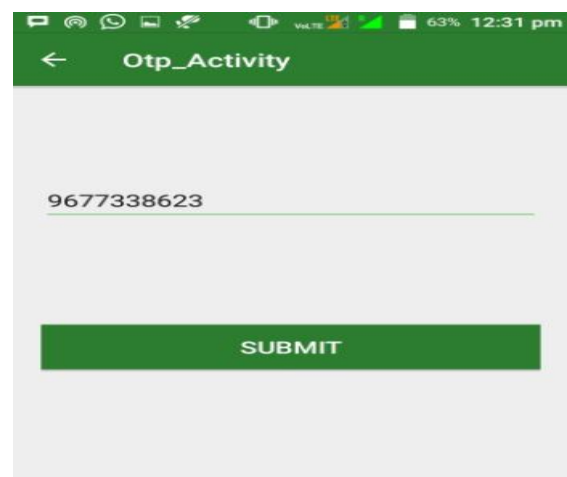Fig.4. Simulated output of one time password



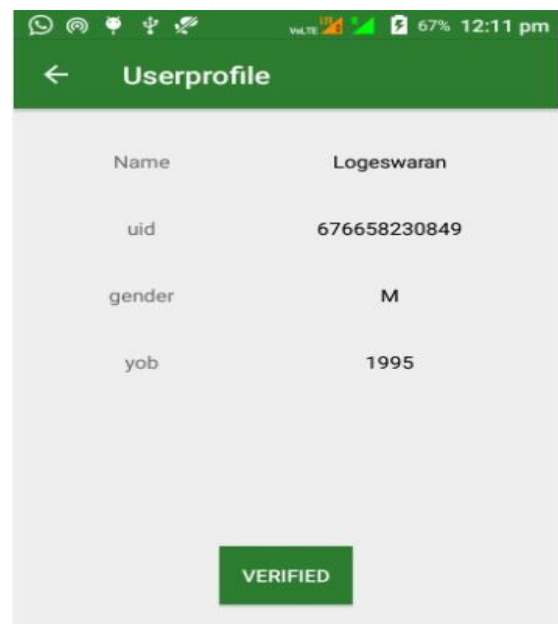Fig.2. Simulated output of login successfully



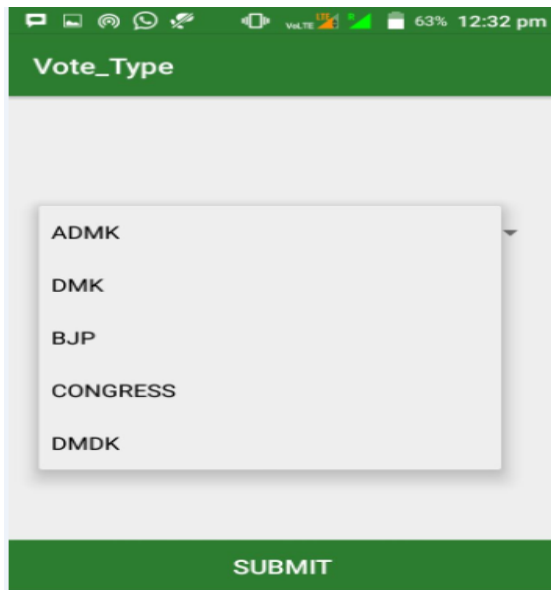Fig.5. Simulated output of user profile

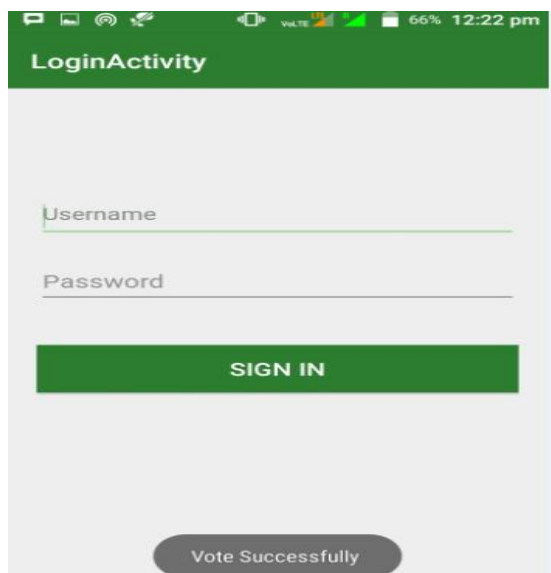Fig.6. Simulated output of selection process



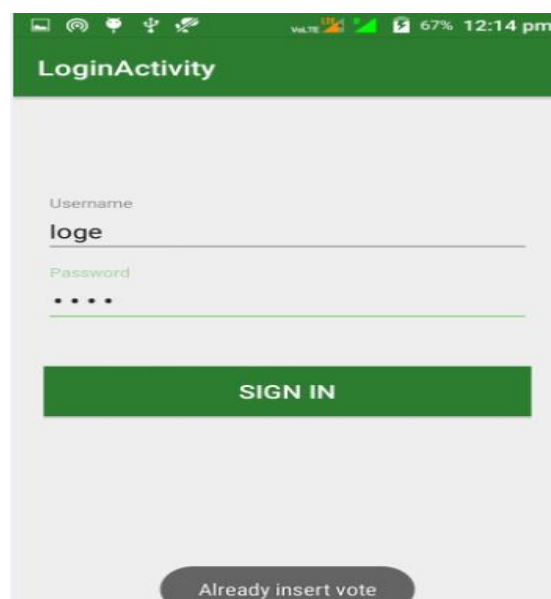Fig.7. Simulated output of voting



Fig.8. Simulated output of re-voting page

## 7. CONCLUSION

Aadhar based android voting application is very useful for the candidates who are in abroad or in longer distance. By referendum using android application we can able to achieve hundred percentage of voting .Due to this referendum application proxy votes can be reduced. In this android application one can cast only one vote from their smart phones .In this referendum application voters no need to stand in long queue for polling. Here voter can consume the voters timings. This methodology also provides high transparency of voters details at the time of registration.

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