

Mobile Device Based Voting System Using the Visual Cryptography

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Abstract: Mobile Voting System (MVS) is a very secure, efficient and easy way to casting of vote. Mobile Voting System creating Online Voting System. All user will enter their details in verification form, server will check whether they are valid user or not. If it is valid, user server provide user Id and Password. By using Application Program Interface (API) and generating One Time Password number administrator will send to the user by using One Time Password number Encryption and Decryption and also visual cryptography. Security providing double time encryption and decryption using visual cryptography. If the hacker tried to hack it will be displayed image or video. System provide a new Electronic Voting (E-Voting) system which full fills the security requirements of voting process. In this paper total three steps are required: Online Registration of the vote casting system for voters and displaying the result. There is a need for the usage of internet for voting purpose. It is required at the time of online registration only. All process will be done through Short Message Service messaging with requirement of internet connection.

Keywords: Mobile Voting, Private Key, Mobile SMS, Visual Cryptography, Secured Network.

I. INTRODUCTION

Mobile Voting System is an online voting system that will operate in parallel with the existing manual and automated voting processes. It will enable the legitimate voters to cast their vote from where ever they use their mobile devices It requires the voters to appear at the polling station. It will help to alleviate the nuisance of long queues at the poll sites which waste their time. It will also ease to vote the counting process which will be done by instantly in the voting progresses and a graphical display will be available on the site attached to the system for all stakeholders to view their progress and hence ensuring the transparency.

As democracies across the globe fight challenges related to the online voting systems. The mobile phone based voting system that incorporated into the current large scale election process. Traditionally, voting process is organized in centralized or distributed manner called voting booths. The earlier process of the election system was quite complex and time consuming. People were waiting in queue for long time. Online mobile voting system provide many benefits like that they don't need to go for polling booths also there is no need to use paper ballots that leads to save the time and cost efficiency and it also to avoid the tiredness and violence . In the proposed system there is no expensive hardwares were used.

The user can use the online voting system through the web. That's why there is more demand for remote voting. The online system procedures are very easy, transparent and most secure than electronic voting. The most common way for the remote voting system is postal voting system, where voters cast their votes through their cell Phones. Internet voting was introduced to provide more flexibility. In general, Mobile Phone Voting System provides mobility feature than the other system. In the internet voting system there is a wide range of criticism. Mobile However this technology accesses certain security threats for it's successful implementation in election.

E-Mails: Election Commission can send the error report to a particular user if they entered any false information. E-Short Message Service: Peoples cannot be able to access the online voting system without connecting the internet. Today many websites provide free Short Message Service to the mobile. Election Commission can use these to send any Information.

The remaining sections are organized as follows. Section II Reviews some existing works using the Efficient E-Voting Android based system and our research focus. Section III Expounds our architectural design and the extension on the enter details framework while Section IV Reports the evaluation of the framework in the real-world. The paper concludes in Section V with our contribution and future direction.

II. LITERATURE REVIEW

A. Efficient E-voting Android Based System:

The advancement in the mobile devices the wireless sensor network and web technologies that may given rise to the new applications which will make the voting process very easy and efficient. The research project provides the specifications and requirements for the E-Voting using an Android Platform. The E-Voting means the voting process in election by using electronic device. E-Voting is not more secure as possible than the paper-ballot system. Electronic failures might occur with such a system.

B. Web-Based Voting System Using Fingerprint:

The problem of voting system is still critical in terms of safety and the security. The design and development of the web based voting system using fingerprint verification in order to provide a high performance with high security to the voting system also the user can use the web technology to make the voting system more practical. The proposed architecture presents the module for election system for selecting the president in university. The Electronic voting System allows the voters to scan their fingerprint and then it will matched with an already saved image with in a database. Web based Voting System using Fingerprint Recognition. The online system has provided an efficient way to cast their votes, free of fraud, and make the system more trust, economic and fast. It may have used based on Minute based fingerprint identification and matching with high accuracy.

More number of peoples were participate in the election to vote their candidate for choosing the majority votes. When limited number of people were register in the system means that particular candidate only allowed for voting and the remaining peoples may not allowed for the voting .

III. THE ARCHITECTURAL DESIGN

The representation of a system in which the principal parts or functions are represented by blocks connected by lines that show the relationships of the blocks. It is typically used for higher level, less detailed description aimed more at understanding to the overall concepts and less at understanding the details of implementation.

Initially all user detail store in Database. All user register their details verifying the valid user or not. If valid user means providing the user name and password. Then login process completed means generating One Time Password number. Enter the valid One Time Password number display the candidate details then goes to Voting Process. Finally all the voting details stored in Result Database.

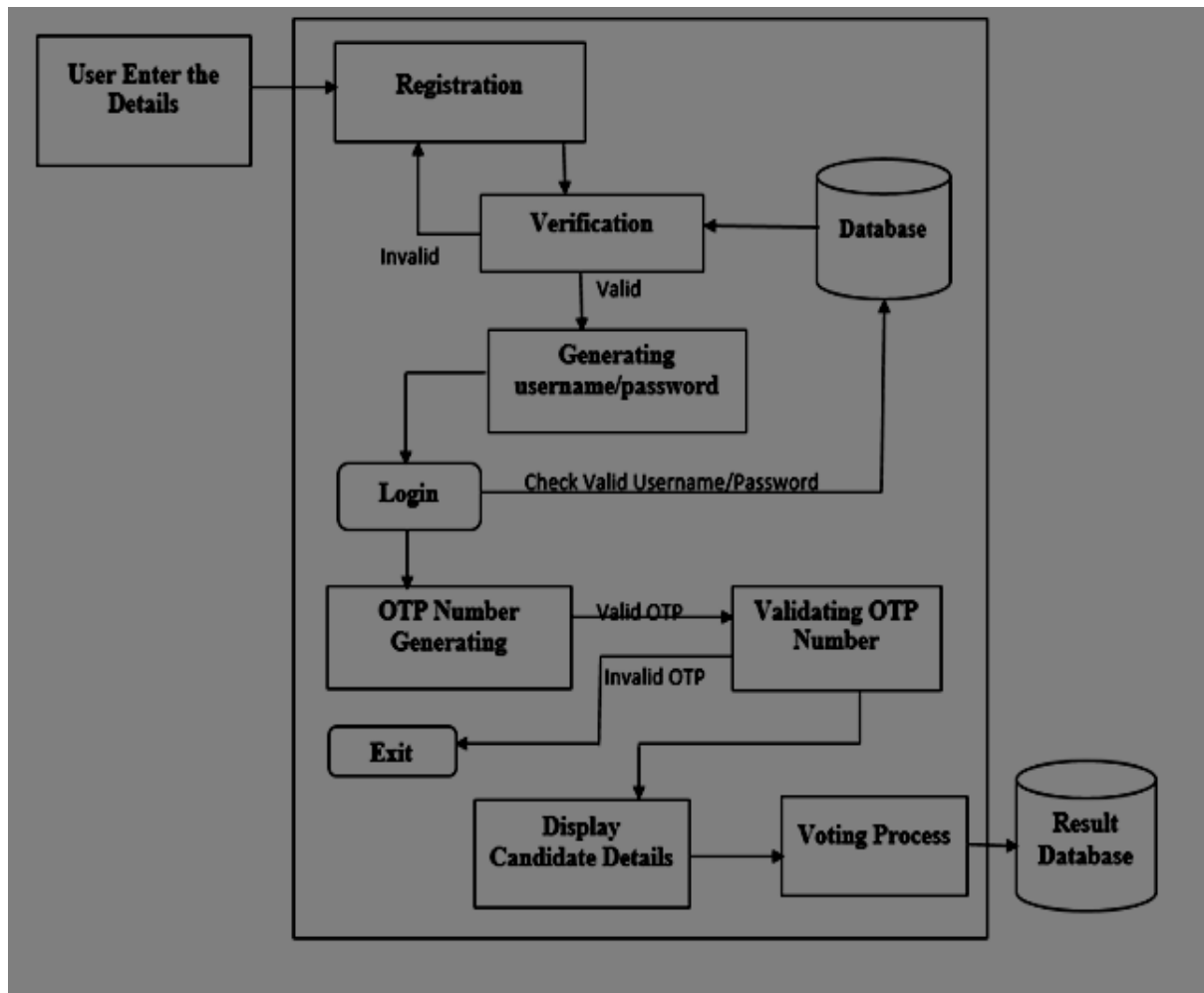


Figure1. The proposed architectural design

IV. IMPLEMENTATION

Initially all user details stored in web server. All user will enter their details server will check whether they are valid user or not. If it is valid user means server provide id number.

The secured OVS (Online Voting System) is the internet voting which include OTP generation for user identity, 10 digit system generated password which will be sent to user or voter on their email address. Verification increase assurability and transparency in the user login to the system where user get OTP (one time password) message to his/her registered phone number. Online voting system with which user can register then get Register ID and password and can vote for the candidate of their choice after login to the system.

A. SECURITY PROCESS:

Two types of algorithm should be used. Double time encryption and decryption used.

1. RSA
2. DOUG STINSON'S

RSA consist of the public key and private key. The public key can be known to everyone, it is used to encrypt messages. The Messages encrypted using the public key can only be decrypted with the private key.

DOUG STINSON'S using visual cryptography format.

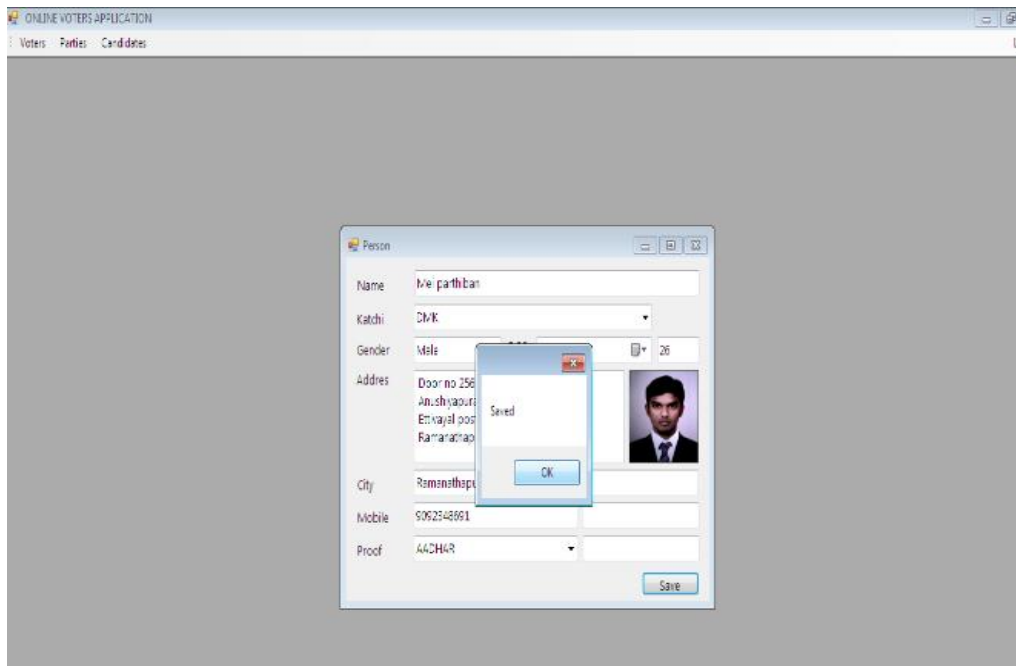


Figure2. Personal Detail Form

All users will enter their details in verification form, server will check whether they are valid user or not. If it is valid user server provide user Id and Password. By using API and generating OTP number admin will send to the user by using OTP number Encryption and Decryption and also visual cryptography.

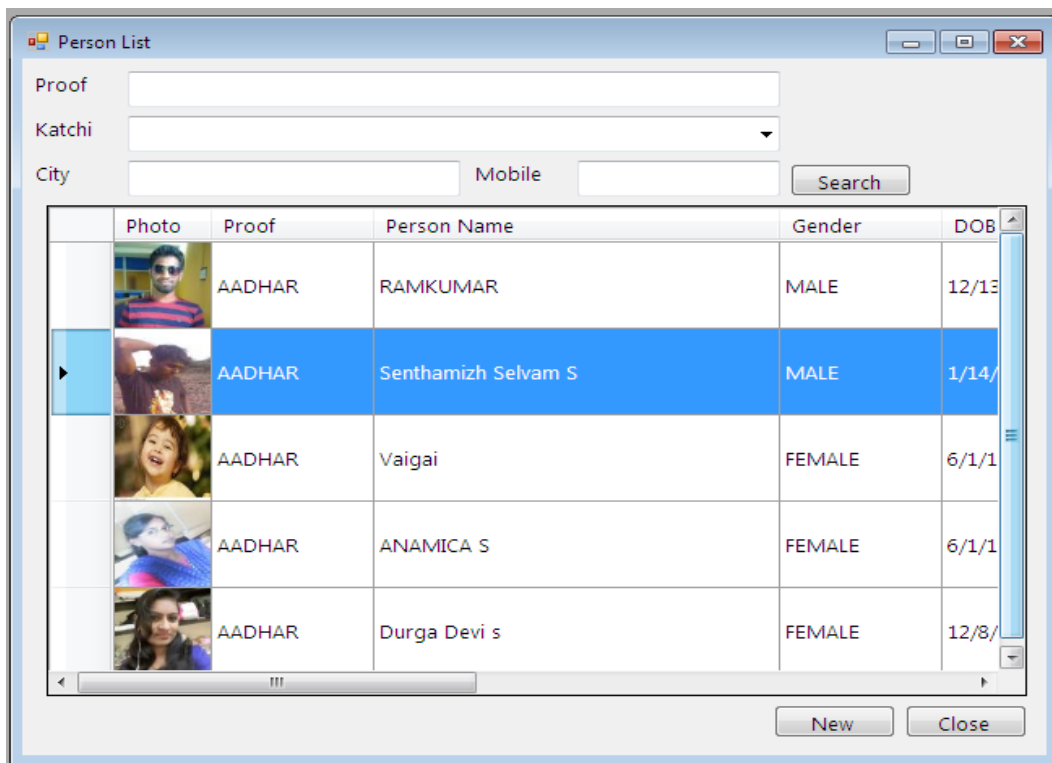


Figure3. List of candidates

Fig3 Represents the database of the online voting system which shows the persons who were registered in the application. The Online voting system shows the authorized candidate through by verifying the database about their details.

V. CONCLUSION

The Online Voting system will manage the voter's information by which voter can login and use their voting rights. The system may incorporate all features of the voting system. It provides the tools for maintaining voter's details to every party and the system counts the total number of votes for every party. There is a database which is maintained by the election commission of the India in which all the names of voters with complete information were stored.

The system user who is above 18 year's can register their information on the database. When they want to vote he/she has to login by his id and password and they can vote to any party only once. Voting details stored in the database and the results were displayed using calculation. By online voting system the percentage of voting was increased. It decreases the cost and time of voting process. They very easy to use and it is very less time consuming. It is very easy to debug.

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