

SECURED AND EASY VOTING SYSTEM USING IOT

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Abstract : A new technique for casting votes using mobile telephones is provided by a safe and easy voting system. Manual and electronic voting devices of many different kinds are currently in use. In this technological era, manual voting systems like paper voting are primitive and inconvenient. Introduced with advanced technologies, electronic voting systems contain several drawbacks such as complicated use requiring special equipment and training. The mobile voting application will take the voting system to the mobile phone of all users. It offers an effective, easy and safe system for registering, logging in and voting by voters. Without excessive planning or man power, elections can be conducted with this application. The entire voting process will be encrypted in order to guarantee security and no evidence as to who voted for whom. Voting integrity is also developed by using identical voting IDs and passwords.

Index Terms— Android, Candidate, Election, Mobile, Voting System.

I. INTRODUCTION

"Vote" means to select, identify or elect from a list. Safe and simple voting system[1] converts the manual process of elections into a more effective software system using tools such as paper ballots. Enhanced flexibility and portability were provided by using the mobile platform. With a straightforward, unequivocal user interface and a basic voting system you can register and login, the voting process is streamlined. In addition with current electronic voting systems allowing electors to configure or use in a difficult way, and which require training or special equipment, a mobile app requires a mobile phone with the Android operating system only.

To show the legitimacy of the voters, their special IDs must be incorporated in the safe and simple voting system. These IDs will be present in a database, if previously registered via the appropriate channels. If the registry holds the same ID, electors are given specific usernames and passwords. An elector can log in to them and cast a vote after which they are signed out automatically. The vote count is calculated and the admin will display it. Nobody can see which voters voted for which candidate in order to preserve anonymity.

Objectives

- It is not possible to vote by internet without a polling station and without proxy votes or dual votes, with fast access, highly secure, easy to maintain, highly effective and scalable data on voting.
- Online voting is capable of reducing or eliminating unwanted errors in human beings.
- On the same day following the election, the outcome will be obtained.

II. LITERATURE SURVEY

Voting requests are necessary to make the selection process quick and easy for the representative. The new groundbreaking voting technology is OVS (Online Voting System; Fig.2). Voting on the internet was cast in OVS. It provides other advantages, such as portability, increased speed, flexibility and reusability. A mobile app is preferable because smartphones are widely used and can be easily used. There are several disadvantages to traditional voting systems such as paper ballots and electronic voting systems (Fig. 1). Voting systems per se take time and are disadvantageous as all voters must be present at a time in a given place. To carry out the operation, excess manpower is required. The results calculation may not be exact because it is manually performed.

There are large scale online voting schemes, such as non-flexible and efficient government elections for general use. New and better voting systems are an important field of study because elections are a key component of government and of our culture. Cranor Error Lorrie! The point of information was unavailable but there were no suggestion that one system be used over the other fix the issues of every form of vote equipment. Peter Neumann addresses the vastness of the challenges that are encountered in designing and creating completely stable voting systems. While robust encryptions of electronic voting systems are more reliable than traditionally used approaches, they pose a whole new range of bugs that can be abused. Anderson C[5] offered an insight into this dilemma.



Fig.1: Electronic Voting System



Fig.2: Online Voting System

III.ARCHITECTURE

The user interface of the Mobile Voting System includes two sets of log-in for the electors and administrative logins. In addition to its specific search ID, which can be its voter ID, Aadhar passport, etc., a user ID and password shall be issued if the voter has already been enrolled by the admin.. This is stored in the VOTER table of the Error list! Not find reference source. Each registered elector. The elector shall enter the user ID and password during registration. This is reviewed in the Error file! The point of reference is not identified and the elector will cast his vote if matched.

The administration will be issued with a separate user ID and password that is stored in the ADMIN table. You will register with administrative rights to the database. With this. The CANDIDATE table will include the names of all eligible candidates and the cumulative number of votes per candidate. It will include a list of all candidates, which can be used only by the director to register new electors and collect results. When the consumer votes for the candidate, the number of votes is increased.

The user interface of the mobile voting systems will be connected to two pages–voters and admin. In addition to the unique Voter ID, a User ID and a password will be provided if the voter is previously registered by the admin. For every registered voter, this data will be saved in the VOTER table. The voter shall enter the user ID and password during log-in. This is checked with the database and the voting can cast his vote if matched.

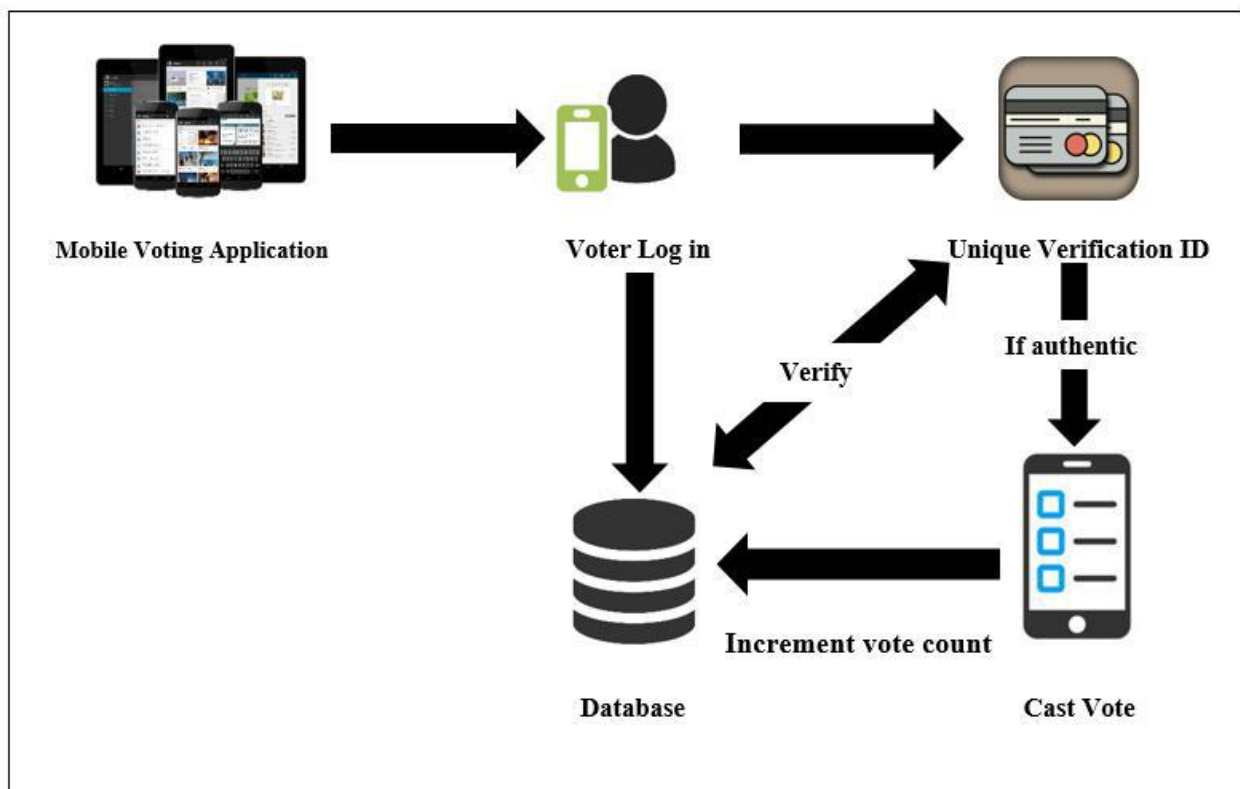


Fig.3: System Architecture

APPLICATIONS

- All voting systems.
- Can be used to register for one-time exam.

ADVANTAGES

- Lower risk of error.
- Easy access, low cost and energy consumption.
- The software will reduce human activity.
- More sophisticated infrastructure and storage.
- Can be used and automatic on any computer.
- Support old people not to come to vote at polling stations from their homes
- Simple gui.
- Save time.
- Avoided voting violence.
- The system is highly reliable and safe.
- Maintenance costs are very low in the long run compared to the current system.
- Fast performance and high precision can be obtained.

IMPLEMENTATION

Two layouts are mainly available in the mobile voting system: Voter log in and admin login.

Administrator: A previous username and password is available for the administrator to log in. When the administrator logs in to the application, it unlocks certain functionality to be selected.

The admin functionalities are explained below.

1. For creating a voter:The application asks the admin to enter voting details, i.e. when this option is selected. Identification ID and title. At least 5 characters long. Title and identification ID. If the fields are correctly filled, the elector is enrolled in the registry and the Voter ID and password created is shown in the application window. Such data are also stored for quick access in the file.

2. For viewing the results: The list of candidates and the cumulative number of votes cast by each voter are shown when this option is chosen. It can be seen by the admin to assess the highest vote for the candidate. Even the admin does not see the routing of electors to candidates for full privacy. None of the clients will display the findings except for the admin.

3. For listing the voters:All registered voters must be logged into a database by the admin. The selection of this option will show this information. That registered voter will be shown on the screen with voting data including name, identification ID, user ID and password.

Voter: The elector must be registered by the regulatory body first. Upon completion of the registration, voters can sign in using the user identity and password created automatically. A list of candidates will be displayed on the screen once logged in. The elector must choose one of them for which to run. Once a vote is cast it will indicate that a confirmation dialog guarantees a tailored choice. The vote is finally accepted and the count is added to the list for this candidate. The voter is then logged out automatically. The voting module is a process of registration and voting. These are used by end-users who participate only in the election but are not responsible for the organization or the development of the project.

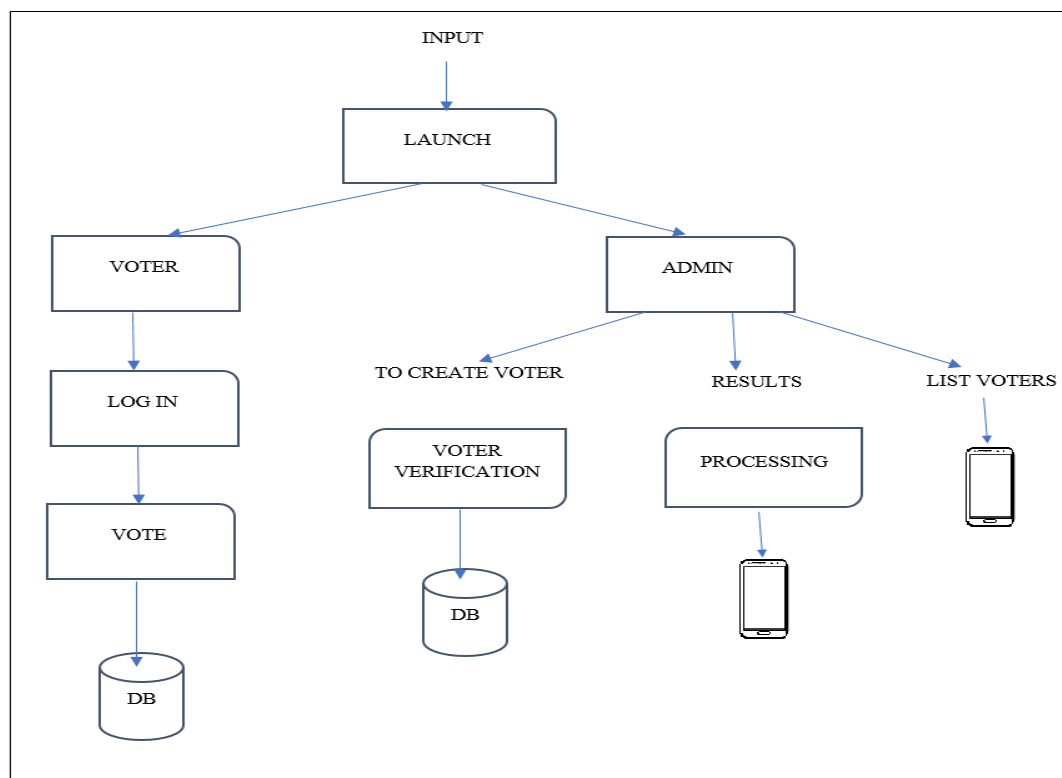


Fig.4: System Implementation

The features of this module include:

1. Only if the client is already authenticated by the admin is logged in efficient.
2. The admin must give user ID and password in advance.
3. The algorithm below is used for generating user ID and password.
4. After the elector logs in, a nominee may be chosen to proceed.
5. There will be a confirmation dialog here. The polling is counted and then signed out when the elector continues.

III. REQUIREMENTS SPECIFICATION

Functional Requirements:

Mobile voting systems are primarily required to create a secure online voting mechanism on a small and specific scale.

Non-Functional Requirements:

1. **Ease of use:** The User must find, understand and use the User Interface quite effectively.

2. **Availability:** The software must be made available when required for use.
3. **Accuracy:** Measurement results are automated and must reduce manual calculation errors.
4. **Flexibility:** It has to be simple to assemble the candidate and voter databases so that the petition to hold elections may be made by different organizations and entities.
5. **Mobility:** In contrast to other electronic voting systems, android voter technology should be more accessible and easy for mobile devices.
6. **Privacy:** A request for a vote must guarantee the privacy and anonymity of the votes cast.

Hardware Requirements:

- Any basic set up computer: Windows XP operating system, Intel Core 2 duo 1.8 GHz cpu, 1 GB of ram, 100 GB of HDD.
- any Android Operating System Smartphone, ver4.1 or higher. Any fingerprint access.
- P89V51RD2 Micro Controller.
- Modulus for GSM.
- LCD screen16x2.
- Supply of power.

Software Requirements:

- Keil micro vision 4
- SST Boot Strap Loader
- Embedded 'C'
- Android SDK 1.5 or Above.
- IDE eclipse.

IV. RESULTS AND DISCUSSIONS

A detailed and user-friendly software to automate voting is built in the Mobile Voting System. A system that can automate the selection of representatives and facilitate voting can quickly meet the organization's needs. The Mobile Voting System is adaptable to any group of users and can be personalized. There are addressed and overcome the limitations of the existing system.



Fig.5: Hardware Module for System Implementation

V. CONCLUSION

The key element in developing a mobile voting system is an easy-to-use way for different types of groups and organisations to make elections. The application also makes voting easy, as it is just a question of searching the database. A good application that can prevent system failures on a widely used platform can get potential users acceptable. An alternative to existing electronic voting systems is cost effective and time consuming.

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