INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH

IN COMPUTER & COMMUNICATION ENGINEERING

INTERNATIONAL STANDARD SERIAL NUMBER INDIA

Impact Factor: 8.165

Online Voting System

Naveen M Shamanur[1*], Prof.Md Irshad Hussain B[2]

[1]Student, Department of Master Applications, University B.D.T College of Engineering, Davangere, Karnataka, India

[2]Assistant Professor, Department of Master Applications, University B.D.T College of Engineering, Davangere,

Karnataka, India

ABSTRACT: The popularity based system is comprised of decides that express that casting a ballot is significant and should be continued to be considered for end-product. In this country each resident has right to cast a ballot. Electors needed to project their voting forms face to face at a surveying station.Individuals from variousplaceswho don't have their democratic cards can't cast a ballot. The outcomes must be determined physically, which consumed a large chunk of the day. The proposed strategy was intended to dispense with the turn out expected for the conventional democratic interaction. The proposed system includes an anywhere from the world people can vote through android application in the phone. When a user logs in to this app, he or she willbe ableto view alist of candidates on Election Day. Following OTP verification, the voter can cast their vote after successful OTP verification.

I. INTRODUCTION

Internet casting a ballot frameworks, at their center, safeguard the honesty of your vote by forestalling citizens fromvoting on numerous occasions. India's administration is vote based. At this point, each Indian resident is a partof the growing computerized India.They have an Aadhar card, which serves as their digital ID. Voting methods have advanced from using paper ballots, punch cards, and electronic voting machines to counting votes by hand. In addition to having some aspects that set it apart from more traditional voting methods, electronic voting systems now have better features like accuracy, ease, flexibility, privacy, verifiability, and mobility. Any voter can exercise their right to vote using an Android voting system from any location in the nation. Voting is extremely secure and may be done from anywhere in the nation without going to a polling place. Voting becomes less intimidating as a result of the diminished threat of violence. They don't require gathering together because they're a digital platform.Due to the widespread usage of mobile phones nowadays, it is now possible to create programes that allow the general public to participate in digital voting from anywhere in the world. The Online Voting System is an application for the Android Mobile OS Platform. It is a voting application (polling). The server location houses a global database for the proposed system. The server, registration centre, and Android client are the three main parts of the system (Voter). In the Java client application, the administrator can register voter and candidate information. There could be a lot of Android voters in the system.

Each Android voter has access to candidate profiles, party data, and the voting process. Our nation has relied on a manual voting process for many years. But for a variety of reasons, a large number of people in our nation are unable to cast a ballot. People could not be able to vote, for instance, if they are not in their own country.

II. LITERATURE SURVEY

Different practices are utilized to present varieties in electronic and web based casting a ballot systems,using different strategies and techniques. Some of them give a degree of confidentialityand security to the framework. Be that as it may, the democratic data and process should be controlled and managed using advanced systems that ensure and guarantee the security and privacy of voters and voter information.

Vaibhav Anasune [1] expresses that starting around 1960, e-casting a ballot frameworks have been sent, and it has now turned into a profoundly viable type of casting a ballot. The punched card framework originally surfaced and was utilized in seven distinct districts in the US for the 1964 official political race. Contrasting democratic electronically with casting a ballot generally has many advantages. Lesser costs, faster outcomes organization, more exactness, and a lower opportunity of human and mechanical blunders are a couple of these advantages.E-votinghasreplacedthe casting a ballot interaction on paper. Private and public associations are mentioning e-casting a ballot frameworks all the more habitually for the purpose of decreasing the requirement for staff and the time it takes to report political decision results. Moreover, it rations tree-based papers, which over long haul will shield the climate from normal catastrophes.

In [2], Political decision is the most common way of picking local pioneers for countries with majority rule frameworks. Ordinarily, the political race process is completed by the local area making a choice for one of the up-and-comers. At both the state and provincial levels inside a country, the up-and-comer with the most noteworthy votes will be confirmed as the following head of state. In the mean time, concurring to(Roopak& Sumathi, 2020), Innovation is aiding the advancement of current political decision exercises. This is on the grounds that the possibility of an effective political race using innovation has begun to be utilized, to assist the local area with giving democratic freedoms without finding success and in consistence with the law.with respect to the local's area This is steady with the assertion made by (kathan et al, 2020) that the virtual democratic framework is basically a device used to give confirmation about the democratic framework in view of biometrics residents and subtleties. The democratic cycle is finished by recovering a Video (Virtual ID) from the Aadhar Information base and involving a serious signature as a voice key encryption..

Ramya Govindaraj [3] In her paper, she portrays how she made a web based casting a ballot framework utilizing the cloud, expressing that all approved and qualified people can enroll on the web and vote by signing into their own frameworks. There are none, so clients' time is being wasted. This has a critical advantage. The framework is planned with the goal that clients are not expected to cast a ballot in surveying places since they can cast a ballot from anyplace. It additionally has a greater number of highlights than the customary democratic framework. By far most of individuals are qualified to vote.Framework speeds up work speed, diminishes mistakes, and advances the period of exact results in this new time of pattern setting development, where everything is done online.An occurrence happens when a manual race structure is utilized. An open choice structure depends on a democratic framework in which everybody should go with a choice.

Xuechao Yang [4] has proposed internet casting a ballot utilizing One notable and compelling strategy with many purposes is homomorphic encryption. Internet casting a ballot frameworks have been created utilizing it. The need for modern security instruments to empower the worldwide organization of web based casting a ballot fills in as the main impetus behind this. Decisions utilizing paper polling forms are unreasonable since they use a ton of assets and obliterate timberlands, which adds to environmental change. Ongoing trials with web based casting a ballot in the US, India, and Brazil have uncovered significant hardships that will require for more concentrate to upgrade security ensures in later races.

G.O.Ofori-Dwumfuo [5] said that casting a ballot framework can been finished in more ways than one i.e., paper based,DirectRecordingElection(DRE),PublicNetworkDRE,Precinct,CentralCounting. To improve on the discretionary cycle for all organizations that utilization deciding in favor of navigation, he involves the Immediate Recording

Electronic Democratic Framework for paper. This framework integrates a few security necessities, for example, access control and client verification, into its plan structure, making it secure and solid as well as strong. Moreover, it offers apparatuses and easy to understand graphical points of interaction that simplify casting a ballot and pleasurable in light of the fact that it is furnished with security defends that reach out from the web to the cell phone.

In [6] The algorithm uses an image-based steganographic and cryptography technology. We need the Steganography component since we want to incorporate biometric identity to increase security. Photos are frequently used as cover media in steganography because they include quantization noise after being digitally altered, which gives room for data encoding. According to the standard Steganography concept, you should pick a cover image, identify any redundant bits, and swap them out for message data bits if you wish to transmit a hidden message. The message can be easily extracted by carrying out the same procedures on the opposite end.This procedure involves writing a message bit over the LSB of a pixel value. If we use a 24-bit image as the cover, then we can easily store three bits in each pixel. The naked eye cannot distinguish between them. Furthermore, the LSB modification procedure modifies the covering picture's statistical characteristics, making it possible for snoopers to identify aberrations in the final image. It's possible that we won't be able to incorporate any personal data in this way.Therefore, we can execute steganography while also providing strong encryption, or we can encrypt the message before embedding it.

Temidayo Peter Abayomi-Zannu [7]has utilized plan analysisHe additionally utilizes OTP for client verification, the citizen's action graph, the blockchain's evidence of-work calculation, execution screen captures, and pseudocode for the two-factor validation process.A proof-of-work (PoW) method would be needed for the blockchain database/ledger, which refers to the computational quandary that nodes/miners must crack in order to keep blockchain networks secure and decentralised. PoW uses cryptographic functions to generally guarantee that a given number of computer cycles were needed to solve the puzzle, demonstrating that you put forth some effort to solve it.A voter would need to be authenticated in order to utilise the programme throughout both the login and voting processes. TheSequence of two-factor verification depicts the many steps of the requires documentation.

III. METHODOLOGY

This section presents client server Architecture in which voter can vote using Aadhar ID

3.1 Admin

- At Server side Admin will login to the web portal using User ID and Password.
- After logging page will show the Candidate details, Public details, Election date, Election places, Parties, Report.
- Admin can add parties which is related to the election and also can delete the party.

After adding parties the places will be added where should election will be held and also date of the political race place.

- Admin will add the details of the Candidates according to their election places.
- Also they will add the details of the Publics in which Aadhar details will be added so that voter can get the secret word to cast a ballot.
- Admin can view the how much votes has been given to candidates in the report.
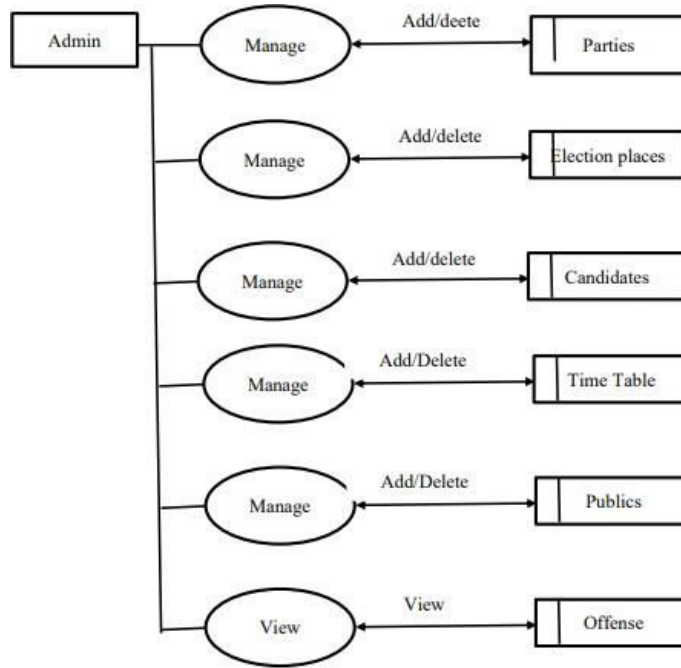
Fig3.1:Dataflow Diagram of Admin

3.2 Client

- Client should install the Android voting system application which is in Playstore.
- After installing theclient will login the app using User ID and Password which has been sent by the server side.
- Voter will see his profile and also after logging he can change the password.
- While voting the voter will have candidate list.
- After clicking one candidate, voter will get OTP and then heors he will add OTP to vote.
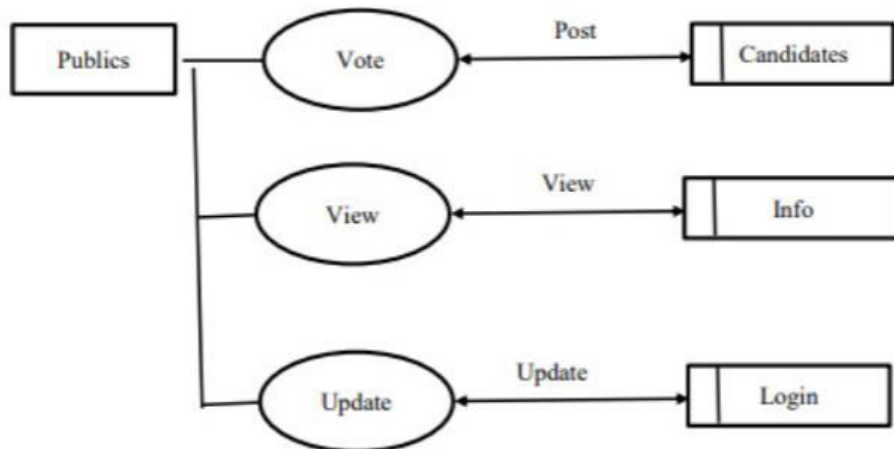- After voting they can't vote to any candidate till next election going.

Fig3.2:DataflowDiagram of Client

3.3 Packages and tools

•   SDK (Programming Improvement Pack) an assortment of projects and assets that let clients fabricate applications in light of things.

•   IDE (Coordinated Improvement Climate) - a piece of programming that incorporates a debugger, compiler, fabricate computerization instruments, and a source code proofreader. It makes running projects and programming simple.

•   ADT (Android Improvement Instruments) - An obscuration add-on that extends the Overshadowing ID by giving designers of Android applications additional apparatuses.

•   AVD(AndroidVirtualDevice)- Utilizing an Android telephone, you might test how such program will perform on a genuine Cell phone.

•   IDK (Java SE Improvement Pack) - a popular Java SDK for making Portable application.

•   ANDROID STUDIO:It fills in as the authority system for creating on the Android rendition.

•   SQLSERVER:It is the social data set administration framework from Microsoft (RDBMS). A completely useful information bases was principally made to collaborate with MySQL and Prophet Data set (DB).

SQL Server upholds ANSI SQL, the standard Inquiry language, similar to all major RBDMS.

3.4 Summary of recent existing system

SL no.	AuthorN ame	Title Name	Methodolog yused
1.	P.Manivannan K.Ramesh	E-Voting System UsingAndroidSmartphone.	1. Generating Q R Code. 2. Mobile Authentication module. 3. QR-CodeScannermodule. 4. Web Servic client module.
2.	Dr. Aree AliMohammad RamyarAbdolrahmanTimour	EfficientE-VotingAndroidBasedSystem.	1. Via SMS. 2. Voting through Internet. 3. Recognition of voice.
3.	CesarR.K.StradiottoAngeloI.ZottiClaudia O.BuenoSonali P. M. BedinHugo C. HoeschlTania C. D. BuenoThiagoP. SOliveira	Web2.0E-VotingSystemUsingAndroid Platform	1. Database. 2. Collecting multiple E-Vote. 3. ApplicationonAndroidsmartphone. 4. Tallyingwebservices. 5. TallyingAndroidsmartphoneapplication.

4.	Drew SpringallTravisFinkenauerZakir DurumericJasonKitcat HarriHurstiMargaret MacAplineJAlexHalderman	SecurityAnalysisoftheEstonianInternetVotingSystem.	ClientSide: 1. Ghost click attack. 2. Bad verify attack. 3. ServerSide: 1. Injectionmalware. 2. Defeating integrity checking. 3. Vote-stealingpayload. 4. Otheravenuesforinfection.
5.	DeepaliBudhiraja	Android Based Online Voting System.	Authentication of fingerprint.
6.	Syed Ali HassanMohsinAnwar	Voting System Using Android Operating System.	1. Complimentary metal oxide semiconductor. 2. Charge couple devices.
7.	Temidayo Peter Adayomi-Zannu Isaac Odun-AyoBarkaForiTatama SanjayMisra	Implementing a MobileVoting System UtilizingBlockchainTechnologyAnd Two-FactorAuthenticationinNigeria	1. Blockchain's algorithms. 2. Pseudocode for two factor authenication.

IV.CONCLUSION

In our cutthroat setting, speedier execution, positive client joy, and dependable information have formed into rewarding key necessities. The developing ubiquity of web applications was considered while fostering this arrangement. The viability and rightness of the application are surveyed through various trials. Electors can undoubtedly utilize this program to project their polling forms from any location.Voters can helpfully project their voting forms utilizing this application without remaining in a major line.This program urges more individuals to cast a ballot in decisions. I work with innovation to upgrade the ongoing democratic cycle.

REFERENCES

1. Rakesh S Raja, [2]RaghavendhraA ,[3]Madhusree K R , [4] Bhargavi D "An Online Voting SystemUsingBiometricFingerprintand Aadhaar Card"
2. Gaurav Kumar*, Smriti Gupta**, Divya Agarwal***, Astha Tiwari**** "VIRTUAL VOTINGSYSTEM"
3. RamyaGovindaraj,KumaresanPK.Sreeharshitha,"OnlineVotingSystemusingCloud"
4. ShivendraKatiyar,KullaiReddyMeka,FerdousA.Barbhuiya,SukumarNandi,"OnlineVotingSystem Powered ByBiometric SecurityUsingSteganography"
5. G.O.Ofori-DwumfuoandE.PaateyMethodistUniversityCollege,"TheDesignofanElectronicVotingSystem"
6. XUECHAO YANG [1] , XUN YI[1] , SURYA NEPAL[2] , ANDREI KELAREV[1] , AND FENGLINGHAN[1]," A Secure Verifiable Ranked Choice Online Voting System Based on HomomorphicEncryption"
7. César R. K. Stradiotto, Ângela I. Zotti, Cláudia O. Bueno, Sonali P. M. Bedin, Hugo C. Hoeschl,Tânia C. D. Bueno, Thiago P. S. Oliveira, Vinícius O. Mirapalheta," Web 2.0 E-Voting SystemUsingAndroid Platform"
8. Drew Springall† Travis Finkenauer† Zakir Durumeric† Jason Kitcat‡ HarriHursti MargaretMacAlpineJ.AlexHalderman†,"SecurityAnalysisoftheEstonianInternet VotingSystem"

9. TemidayoPeterAbayomi-Zannu,IsaacOdun-Ayo,BarkaForiTatamaandSanjayMisra,"ImplementingaMobileVotingSystemUtilizingBlockchainTechnologyandTwo-FactorAuthenticationin Nigeria"

10. P.Manivannan[1],K.Ramesh[2],"E-VOTINGSYSTEMUSINGANDROIDSMARTPHONE"

11. Dr.AreeAliMohammed,RamyarAbdolrahmanTimour,"EfficientE-votingAndroidBasedSystem"

12. DeepaliBudhiraja*[1],"ANDROIDBASEDONLINEVOTINGSYSTEM"

13. SYEDALIHASSAN[1],MOHSINANWAR[2],"VOTINGSYSTEMUSINGANDROIDOPERATINGSYSTEM"

14. Michael Specter, MIT; J. Alex Halderman, "Security Analysis of the Democracy Live OnlineVotingSystem"

15. G. Kalaiyarasi, K. Balaji, T. Narmadha, V.Naveen, "E-Voting System in Smart Phone" 2020 6thInternational Conference on Advanced Computing and Communication Systems (ICACCS)

16. "Online Voting System via Smartphone" Shaikh Mohammad Bilal N Department of ComputerScienceK.JSomaiyaCollegeofScienceandCommerceMumbai,India

INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH

IN COMPUTER & COMMUNICATION ENGINEERING

📱 9940 572 462   💬 6381 907 438   ✉ ijircce@gmail.com

Scan to save the contact details