ONLINE VOTING SYSTEM

A PROJECT REPORT

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in partial fulfillment for the award of the degree

of

BACHELOR OF COMPUTER APPLICATIONS(BCA)

HINDUSTAN INSTITUTE OF TECHNOLOGY AND SCIENCE PADUR,
CHENNAI - 603 103

MAY 2022

BONAFIDE CERTIFICATE

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ACKNOWLEDGEMENT

We wish to express our sincere gratitude Dr.P.Ranjana, Head, Department Of Computer Applications,for having evinced keen interest in our project and for her continued support.

We also thank, Dr.AngelineBenitta,Asst.Prof (SG), Project Coordinator (BCA), for her support throughout the completion of our project. We are indebted to our project guide Dr.SriDeivanaiNagarajan,Asst.Prof (SG), Department of Computer Applications for her stimulating suggestions and encouragement which helped me to coordinate my project especially in writing this report.

A special thanks goes to all my staff members and friends who helped me in my coding and gave their valuable suggestions about the project.

Last but not least, I would also like to thank God Almighty and my family who were keen in helping me in all ways and to give their blessings.

ABSTRACT

Online voting (also known as e-voting) is voting using electronic means to either aid or take cae of the chores of casting and counting votes. Depending on the particular implementation, e-voting ray encompass a range of Internet services, from basic data transmission to full-function online voting through common connectable household devices. Similarly, the degree of automation may vary from simple chores to a complete solution that includes voter registration & authentication, vote input, local or precinct tallying, vote data encryption and transmission to servers, vote consolidation and tabulation, and administration. A worthy e-voting system must perform most of these tasks while complying with a set of standards established by regulatory bodies, and must also be capable to deal successfully with strong requirements associated with security, accuracy, integrity, swiftness, privacy, audit ability, accessibility, cost-effectiveness, scalability and ecological sustainability.

Our project deals with online voting system that facilitates user(voter), candidate and administrator (who will be in charge and will verify all the user and information) to participate in online voting. our online voting system is highly secured, and it has a simple and interactive user interface. The proposed online portal is secured and have unique security feature such as unique id generation that adds another layer of security (except login id and password) and gives admin the ability to verify the user information and to decide whether he is eligible to vote or not. It also creates and manages voting and an election detail as all the users must login by user name and password and click on candidates to register vote. Our system is also equipped with a chat bot that works as a support or guide to the voters, this helps the users in the voting process.

The online voting system allows the voters to cast their vote from any place at any time which leads to increasing the voter participation count. The objective of the paper is to create a voting system which provides transparency and security using Blockchain technology, the Ganache tool is used for setting up a local blockchain network. The meta mask is used for account verification .

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CHAPTER-1

1.INTRODUCTION

1.1 OVERVIEW:

Systems Development Life Cycle (SDLC) is any logical process used by a systems analyst to develop an information system, including requirements, validation, training, and user ownership. An SDLC should result in a high quality system that meets or exceeds customer expectations, within time and cost estimates, works effectively and efficiently in the current and planned Information Technology infrastructure, and is cheap to maintain and cost-effective to enhance.

Computer systems have become more complex and usually (especially with the advent of Service-Oriented Architecture) link multiple traditional systems often supplied by different software vendors.

To manage this, a number of system development life cycle (SDLC) models have been created: waterfall, fountain, spiral, build and fix, rapid prototyping, incremental, and synchronize and stabilize. Although in the academic sense, SDLC can be used to refer to various models, SDLC is typically used to refer to a waterfall methodology.

In project management a project has both a life cycle and a "systems development life cycle" during which a number of typical activities occur. The project life cycle (PLC) encompasses all the activities of the project, while the systems development life cycle (SDLC) is focused on accomplishing the product requirements.

1.2 PROBLEM DEFINITION AND SCENARIOS:

Electronic voting systems are rapidly overlapping the traditional paper-based voting. Intraditional voting there are number of factors that make rigging in whole electoral processsuch as counting of votes, fake voters and involvement of outside sources and also otherproblems like time consumption, cost budget problems etc

So the purpose of this proposal isto investigate how to model an authentic reliable and upright E-voting system so that a voters submitted a vote in secure manner while maintaining the time, verification, budget and also the security of the entire system.

1.3 SCOPE OF THE PROJECT:

The requirement of election is to establish democratic decisions. Conventional voting systems include papers, punch cards, mechanical levers, optical-scan machines etc. However, none of them can satisfy a truly secure and verifiable election while maintaining privacies of voters because they cannot prove their honest operations without revealing individual votes. Also they are not efficient as they are conducted manually and therefore very often they are not accurate.

In contrast, electronic voting (e-voting) schemes based on advanced techniques can alleviate the limitations of conventional voting systems. Also the resources of e-voting schemes are reusable; therefore e-voting based elections become inexpensive. Moreover, many people all over the world usually do not participate in elections because of the hassles of conventional voting systems. The conveniences of e-voting systems may encourage them to take part in elections. However e-voting schemes have potential problems that may sacrifice all of their benefits. Namely, simple vote verification mechanisms enable entities to identify the link between voter and its vote, and as a consequence, the privacy of the voter is breached. Thus, coercers can force voters to obey their intentions.

On the other hand, complicated mechanisms that achieve complete anonymity of voters while maintaining verifiability of their votes make e-voting systems non-scalable and non-practical. For example, many voting schemes involve zero knowledge proof (ZKP) to prove the correct behavior of entities. Namely, to confirm that only eligible votes are accepted and all eligible votes are counted. However ZKP requires complicated computations and.communications evoting schemes unrealistic .Also the assumption of trusted authorities in many existing schemes to conduct election may sacrifice the privacy of voters and in coercibility.

1.4 EXISTING SYSTEM:

The Existing System of Election is running manually. The Voter has to Visit to Booths to Vote a Candidate so there is wastage of Time. The Voter has to manually register into the Voter List. Also Vote counting has to be done manually.

All the Information of the Voter or Candidate is to be filling in manually. Voter must be present in his/her Constituency to give his/her Vote. There are Electronic Voting Machines used which Takes More Cost.

The voting system previously being used by the Government is a paper based system, in which the voter simply picks up ballots sheets from electoral officials, tick off who they would like to vote for, and then cast their votes by merely handing over the ballot sheet back to electoral official. Some of the existing systems are:

i. Paper-based voting
ii. Direct recording electronic voting machine
iii. Punch card

1.1.1 DISADVANTAGES OF EXISTING SYSTEM:

All the Information of the Voter or Candidate is to be filling in manually registering process.

- Took more time to manual voting verification
- The voting system previously being used by the Government is a paper based system.
- Time consume more.

1.5 PROPOSED SYSTEM:

Online Voting System (OVS) project is aimed at developing an online voting technique for the facilities in the campus. This system can be used to vote for the nominated person in the campus. It resolves major problems faced by students. The end user and the admin, those who use the system to create a request are the end users. One who gets the request resolved and updates the status of the request is the admin.

This is an intranet based application that can be accessed throughout the campus. Registered users will be able to log in a request for nomination or they can vote for the nominated person. If the student wants to nominate they can give request from the nomination page. It will send to admin and status of your request has been informed as soon as possible. Admin has a full access permission to view the registered student, to response the request

1.2.1 ADVANTAGESOF PROPOSEDSYSTEM

- Voting time is very less.
- Less number of peoples required.
- Candidate details will be available on online.
- Admin can see the Result and Feedbacks easily.
- Accuracy of data is achieved.

CHAPTER 2

2. LITERATURE SURVEY:

2.1 AN EFFICIENT AND SECURE STUDENTS ONLINE VOTING APPLICATION :

Author :Bhushan M. Pawar

The Aim Of This Proposed Project Is To Make The Democratic Process Simple For The Students At The College Level. Presently In Our College, Vote Casting Is Performed By Utilizing Paper And Counting Is Done Manually So It Expends Students As Well As Educators Valuable Time, Also There Can Be A Possibility Of Error While Tallying The Cast Votes. All This Makes The Vote Casting Process Very Dreary So In Our Project, The Vote Capturing And Tallying Is Done On The Web. It Saves Processing Time, Avoids Human Errors And There Won't Be Any Invalid Votes It Has A Basic User Interface Of Application Which Attracts Users. As This Application Is Planned For Students So Verification Happens On The Basis Of Unique Id Code Which Is The Students' Registered Id, With This Goal The Students Can Cast Their Votes Remotely From Anyplace. This Is A Combo Box Application So It Additionally Comprises University Question Papers, Syllabus, And College Fundamental Data Or Different Activities Of The College.

2.2 E-VOTING MANAGEMENT SYSTEM

Author :STELLA

The e-voting kiosk: A Network Architecture School-Based Registration and Voting System features an election management system that provides a secure, clean, and honest Supreme Student Government election for Eastern Visayas State University-Main Campus. The study is driven to design and develop a voting system that is equipped with a network-based software architecture that provides computing resources to multiple voting kiosks where voters can register and cast their votes securely.

The study employs a quantitative descriptive research design to present the respondents' perception of the current manual election system compared to the e-voting system. A waterfall model was employed in the sequential process of developing the e-voting system. Researchers utilized specialized software applications such as C# and MySQL in creating a secured database for the robust development of the system. The findings of the study present a unique e-voting system powered by an election management system that features an intelligent system algorithm. The e-voting kiosk features interactive ballots that allow voters to easily cast their votes securely. The system provides secured access to voters' identity and process real-time generation of election results. The observed system performance resulted to a significant rating of 4.04 interpreted as "Very Efficient" and its software characteristics was rated 95% for its contribution in the election proceedings. Finally, the electoral board unanimously approved the implementation and use of e-voting system which provides fast, effective, efficient, and reliable election management system.

2.3 ELECTRONIC VOTING SYSTEM :

Structuring an electronic voting system which fulfills the legitimate requirements of representatives has been a challenge for a long time. Conducting the free, systematic and impartial election is the vital goal of every democracy nation. Every country follows a different voting system from old paper ballot system to Electronic voting system. There facing a many problem in these voting systems.

The main problem is location and the accessibility, people are suffering to go to their native place polling booth for casting their vote. This needs to be considered as every people`s vote plays significant role in deciding the right leaders. Blockchain technology offers the transparency and security requisites for the impartial election. It is a complete decentralized, immutable ledger system. The online voting system allows the voters to cast their vote from any place at any time which leads to increasing the voter participation count. The objective of the paper is to create a voting system which provides transparency and security using Blockchain technology, the Ganache tool is used for setting up a local blockchain network. The metamask is used for account verification.

CHAPTER-3

3 . SYSTEM DESIGN

3.1 HARDWARE REQUIREMENTS :

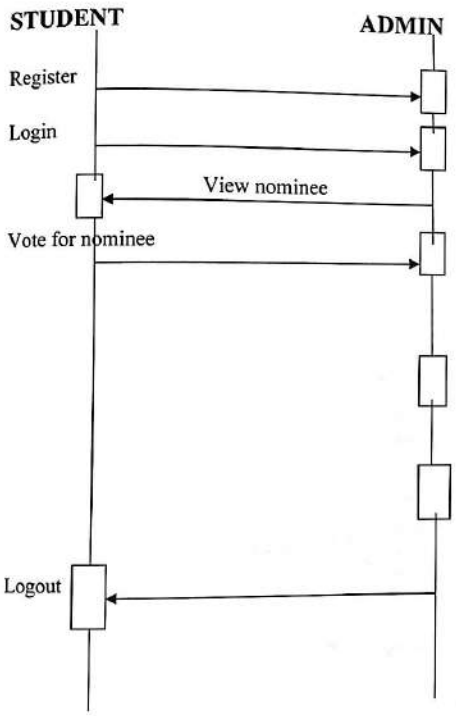
- Processor - Pentium –IV
- Speed - 2.5GHz
- RAM - 2GB(min)
- Hard Disk - 500 GB
- Key Board - Standard Windows Keyboard
- Mouse - Two or Three Button Mouse

3.2 SOFTWARE REQUIREMENTS:

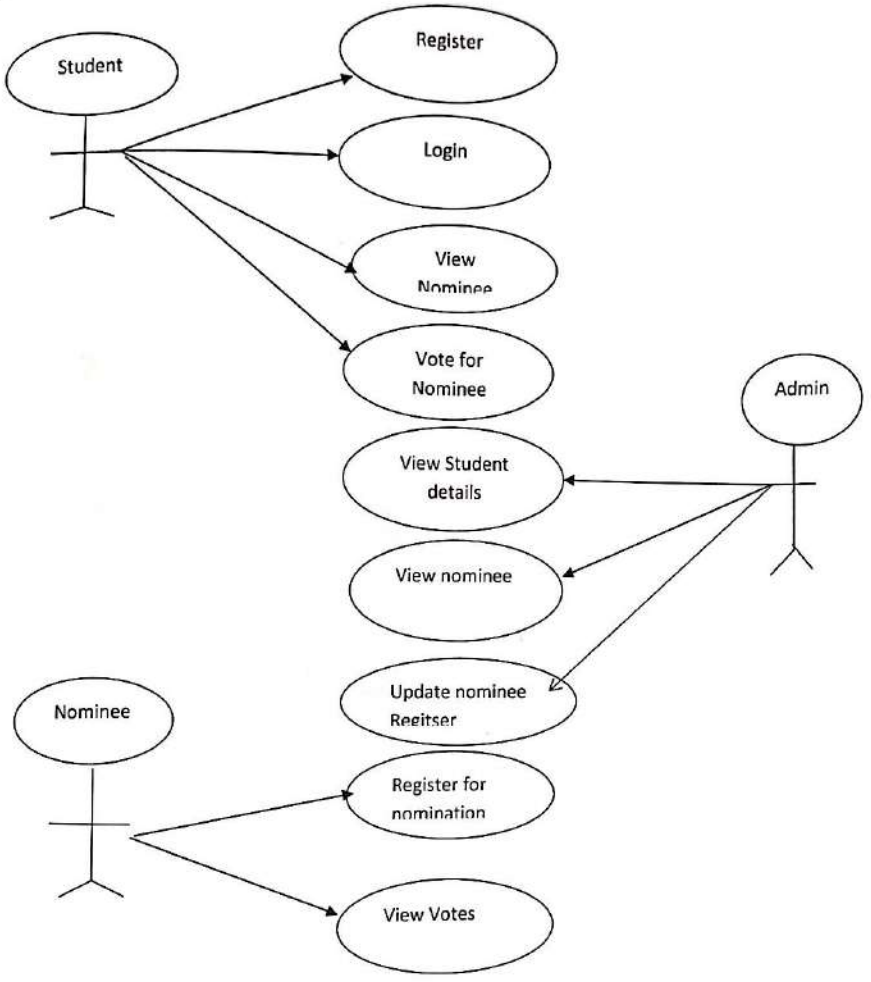
- Operating System : Windows10/7.
- Application Server : XAMPP
- Front End : HTML, CSS, JAVASCRIPT.
- Server side Script : PHP.
- Database : MySQL

3.3 DIAGRAMS

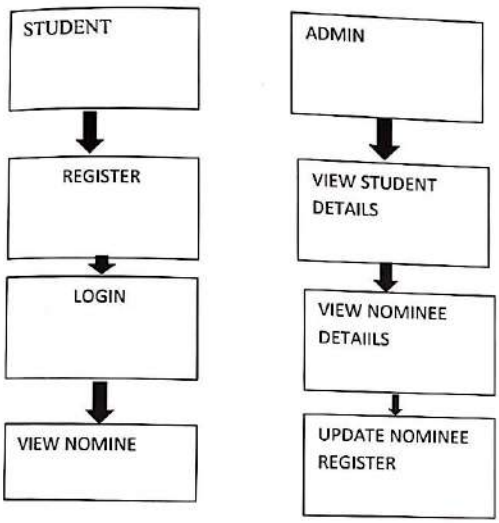
3.3.1 SEQUENCE DIAGRAM



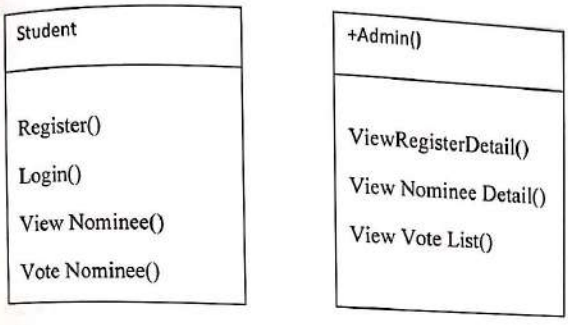
3.3.2 USE CASE DIAGRAM



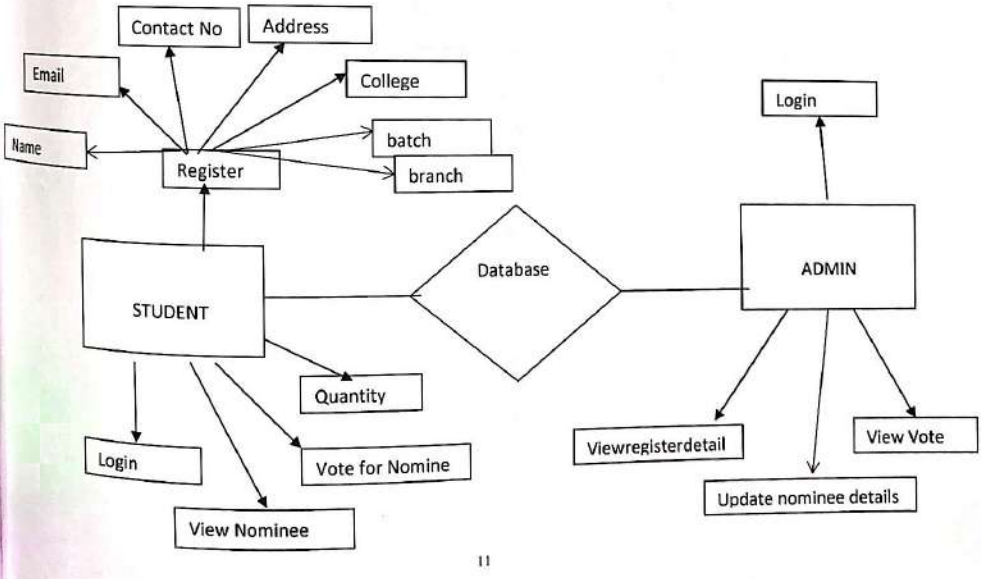
3.3.3 ACTIVITY DIAGRAM:



3.3.4 CLASS DIAGRAM:

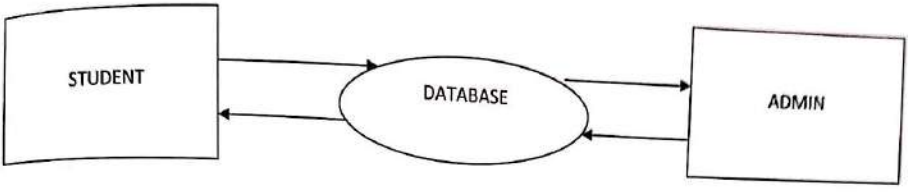


3.3.5 ER DIAGRAM:



3.3.6 DATA FLOW DIAGRAM:

LEVEL 1:



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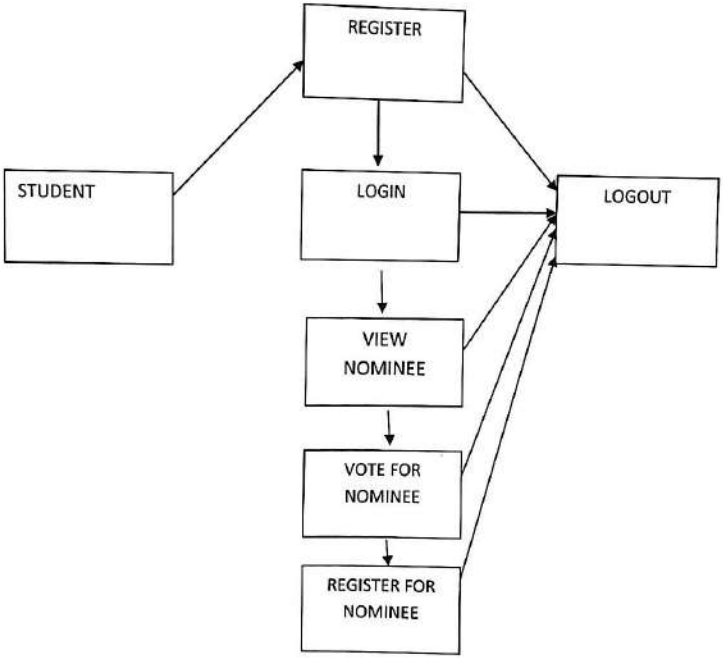

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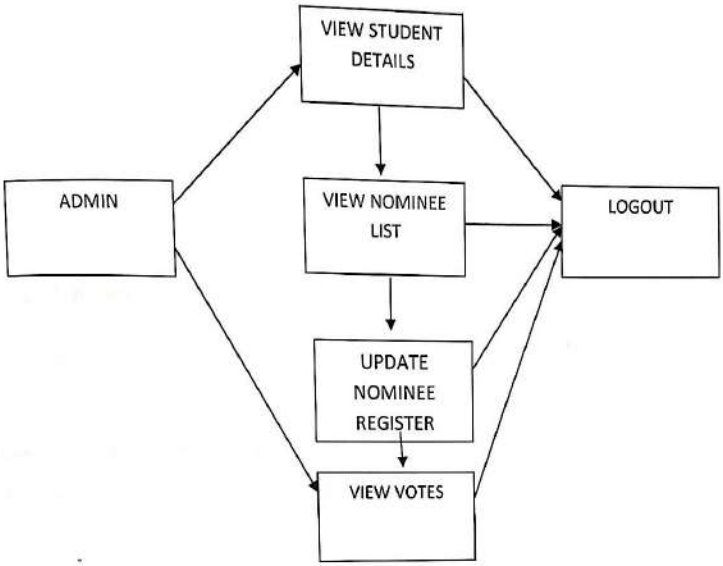

CHAPTER-4

4. MODULE DESCRIPTION

MODULES

4.1 Student Register:

The Student have to register before they login to the web page the user have to register with their, address mail ,phone no and the secret password.

The user have to keep the information secretly then only they can login again if they lost the details they have to register again and do the process.

Student Login:

The student login after the successful register the user have to login to enter into the webpage.

The student have to fill the correct details and then only it will allow the user The student can be able to check their nomination page.

Dashboards:

After login the web page which will directly redirect user into the webpage dashboard

The user can check their option and they will select the Vote they want

View Nominee:

In this module student will see how many persons are nominated in election. They are list out in the webpage. student can select the nominees to vote

4.2Admin Register:

Admin registration is done by the admin only.

The admin should give their name and password correctly else it won't allow the user to the admin panel.

If the admin did not give the correct information the webpage will not allow the admin to enter admin panel.

Dashboard:

If the admin entered correct details it will lead to the admin dashboard at their which admin can view the student details, view nominees details, update nominees register and vote by students

The admin can only access the admin dashboard

Student Details :

The Student details which means those who register to the webpage

The details display along with the name ,address, contact no, except the password details of the Student

Vote Details:

The detail of the person who have casted vote will be displayed here