
# VOTING SYSTEM

*Abhijeet Jadhav* *8/4/23* *[BSc-IT]*

## PROFORMA FOR THE APPROVAL PROJECT PROPOSAL

PNR No.: ..... Roll Number: _____

1.Name of the Students: _____

2.Title of the Project: _____

3.Name of the Guide: _____

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5.Is this your first submission?

☐ Yes

☐ No

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Date: .....

Signature of Guide:

Date: .....

Signature of coordinator:

Date: .....

# ONLINE VOTING SYSTEM

**A Project Report**
Submitted in partial fulfillment of the
Requirements for the award of the Degree of

**Bachelor of Science (Information Technology)**

By

Mr. Abhijeet Shrimant Jadhav

Roll no. – 11

**Under the Guidance of**

**Mrs. Hiral Joshi**

**DEPARTMENT OF INFORMATION TECHNOLOGY**

**N.E.S RATNAM COLLEGE OF ARTS, SCIENCE &COMMERCE**

***(Affiliated To University Of Mumbai)***

**BHANDUP (W), MUMBAI-400078**

**MAHARASHTRA**

**(2022-23)**

# ABSTRACT

We are working on project named "**Online Voting System**." The Project is developed for the threat free and user-oriented E- Voting System. The E-Voting system is made for the people of the country residing around the world and wants to vote for their representative. The automated ballot elections are called the electronic voting. An online voting system for Indian election is proposed for the first time in this paper. The proposed model has a secure authentication for greater security in the sense that voter high security password is confirmed before the vote is accepted in the main database of Election Commission of India.

The additional feature of the model is that the voter can confirm if his/her vote has gone to correct candidate/party. In this model a person can also vote from outside of his/her allotted constituency or from his/her preferred location. In the proposed system the tallying of the votes will be done automatically, thus saving a huge time and enabling Election Commissioner of India to announce the result within a very short period. An online voting system for Indian election is proposed for the first time in this paper. The proposed model has a greater security in the sense that voter high security password is confirmed before the vote is accepted in the main database of Election Commission of India.

The additional feature of the model is that the voter can confirm if his/her vote has gone to correct candidate/party. In this model a person can also vote from outside of his/her allotted constituency or from his/her preferred location. In the proposed system the tallying of the votes will be done automatically, thus saving a huge time and enabling Election Commissioner of India to announce the result within a very short period. Keywords: Authentication, Voting, Unique key.

# ACKNOWLEDGEMENT

I am humbly pleased to present my website **"Online Voting System"** & I grabbed this opportunity to convey my immense regards towards all the distinguish people who have the valuable contribution in the hour indeed.

I would like to thank **"Dr VINITA DHULIA"** our principle of "NES RATNAM COLLEGE BHANDUP (WEST) "for giving me an opportunity to study in this institute &the most needed guidance throughout the duration of the course.

My heartfelt gratitude to my project guide **"Mrs. HIRAL JOSHI"** for his valuable suggestions and guidance in the preparation of the project report.

I thank our college for providing us with excellent facilities that helped me to complete and present this project. I would also like to thank the staff members and lab assistants for permitting us to use computers in the lab as and when required.

I would also like to thank mam for providing me with all proper facilities and support as the project co-coordinator. I would like to thank her for the support, patience and faith in our capabilities and for giving us the flexibility in terms of working and reporting schedules.

Last but not the Least; I am very much thankful to my parents who guided me in every step which I took & I am greatly indebted to each and everybody my friends and who has been associated with my project at any stage but whose name does not find a place in this acknowledgement.

With sincere regards,

**ABHIJEET SHRIMANT JADHAV**

# DECLARATION

I hereby declare that the project entitled, "**ONLINE VOTING SYSTEM**" done at **N.E.S Ratnam College of Arts, Science & Commerce**, has not been in any case duplicated to submit to any other university for the award of any degree. To the best of my knowledge other than me, no one has submitted to any other university.

The project is done in partial fullfilment of the requirements for the award of degree of **BACHELOR OF SCIENCE (INFORMATION TECHNOLOGY)** to be submitted as final semester project as part of our curriculum.

**NAME: ABHIJEET JADHAV** _____

**PLACE: MUMBAI** **SIGNATURE**

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# CHAPTER I: INTRODUCTION

## 1.1 Background :-

The Online voting system (OVS) also known as e-voting is a term encompassing several different types of voting embracing both electronic means of counting votes. Electronic voting technology can include punched cards, optical scan voting systems and specialized voting kiosks (including self-contained direct-recording electronic voting systems or DRE). It can also involve transmission of ballots and votes via telephones, private computer networks, or the internet. Online voting is an electronic way of choosing leaders via a web driven application. The advantage of online voting over the common “queue method” is that the voters have the choice of voting at their own free time and there is reduced congestion. It also minimizes on errors of vote counting.

The individual votes are submitted in a database which can be queried to find out who of the aspirants for a given post has the highest number of votes. This system is geared towards increasing the voting percentage in Nepal since it has been noted that with the old voting method {the Queue System}, the voter turnout has been a wanting case. With system in place also, if high security is applied, cases of false votes shall be reduced. With the “ONLINE VOTING SYSTEM”, a voter can use his\her voting right online without any difficulty.

He\She has to register as a voter first before being authorized to vote. The registration should be done prior to the voting date to enable data update in the database. However, not just anybody can vote. Internet voting systems are appealing for several reasons which include; People are getting more used to work with computers to do all sorts of things, namely sensitive operations such as shopping and home banking and they allow people to vote far from where they usually live, helping to reduce absenteeism rate.

## 1.2 Introduction of Organization :-

"ONLINE VOTING SYSTEM" is an online voting technique. In this system people who have been in an organization and those who participated in election can give his\her vote online without going to any physical polling station. There is a database which is maintained in which all the names of voters with complete information is stored.

In "ONLINE VOTING SYSTEM" a voter can use his\her voting right online without any difficulty. He\She has to be registered first for him/her to vote. Registration is mainly done by the system administrator for security reasons. The system Administrator registers the voters on a special site of the system visited by him only by simply filling a registration form to register voter. Employees seeking registration are expected to contact the system administrator to submit their details. After the validity of them being employees of organization has been confirmed by the system administrator by comparing their details submitted with those in existing databases such as those as the Registrar of Persons, the citizen is then registered as a voter.

After registration, the voter is assigned a secret Voter ID with which he/she can use to log into the system and enjoy services provided by the system such as voting. If invalid/wrong details are submitted, then the citizen is not registered to vote.

## 1.3 Current Situation of the Organization :-

The current situation of the existing manual system of voting include among others the following:

1. Expensive and Time consuming: The process of collecting data and entering this data into the database takes too much time and is expensive to conduct, for example, time and money is spent in printing data capture forms, in preparing registration stations together with human resources, and there after advertising the days set for registration process including sensitizing voters on the need for registration, as well as time spent on entering this data to the database.

2. Too much paper work: The process involves too much paper work and paper storage which is difficult as papers become bulky with the population size.

3. Errors during data entry: Errors are part of all human beings; it is very unlikely for humans to be 100 percent efficient in data entry.

4. Loss of registration forms: Some times, registration forms get lost after being filled in with voters' details, in most cases these are difficult to follow-up and therefore many remain unregistered even though they are voting age nationals and interested in exercising their right to vote.

5. Short time provided to view the voter register: This is a very big problem since not all people have free time during the given short period of time to check and update the voter register.

6. Above all, a number of voters end up being locked out from voting.

## 1.4 Security Issues of Online Voting :-

Foreign experience revealed that they are often confronted by security issues while the online voting system is running. The origin of the security issues was due to not only outsider (such as voters and attackers) but also insider (such as system developers and administrators), even just because the inheritance of some objects in the source code are unsuitable. These errors caused the voting system to crash. The proposed solutions were correspondingly outlined to hold back these attacks.

For example, to avoid hacker making incursion into the voting system via network, we can design our system to transmit data without network. Another example is to limit voter to input particular data, so that we can prevent the command injection from running.

## 1.5 Objectives of the Project :-

The most crucial factor for a system like e-VOTE to be successful is to exhibit a Voting Protocol that can prevent opportunities for fraud or for sacrificing the voter's privacy. The Voting Protocol that will be designed and implemented for the e-VOTE system will combine the advantages of existing protocols and techniques, while at the same time it will aim at eliminating most of the identified deficiencies and problems. The related attributes that the e-VOTE system will fully support, and against which it will be extensively tested and validated, are listed below. These attributes can be also considered, according to the literature, as a set of criteria for a "good" electronic voting system that can easily enjoy the trust and confidence of the voters and process organizers.
The specific objectives of the project include:

- Reviewing the existing/current voting process or approach in Organization;
- Coming up with an automated voting system in Organization;
- Implementing a an automated/online voting system;
- Validating the system to ensure that only legible voters are allowed to vote.

## 1.6 Scope of the Project :-

Online Voting System has a good scope in future due to following reasons:
i.) Voter can Vote from anywhere for his/her Constituency.
ii.) Vote count will make easy and fast.
iii.) Invalid Vote will be rejected.
iv.) It Maintains all The Information of all the Candidates and Votes.v.) It checks Voter have Voted or Not.
vi.) You can observe All Information Related to any Voting System Online.
vii.) It Increase the Voting Percentage.
viii.) Finally, it makes Easy Voting by Avoiding problems like Security, Booth capturing.
The actual purpose of going for this system is to make the organizational process to get speed up.

### 1.6.1 Problem Identification:-

The percentage of polling on the day of elections is not satisfactory as majority of the people are not coming to vote and thinks is just as a wastage of time.The manual voting system takes long time as there is a lot of paper work first and then human effort is also there for counting of the votes. Manual voting consumes almost 4-6 hrs. (approx.) of every voter which is surely a headache.
The voting will be done online such that there is no need to come at the place on the time of elections and the people can vote from the home or from any other place. A key will be provided to every person, so that on the time of elections they can easily login on the election link and can use his/her vote.

## 1.7 Features :-

Require less number of staff during the election.

This system is a lot easier to independently moderate the elections and subsequently reinforce its transparency and fairness.

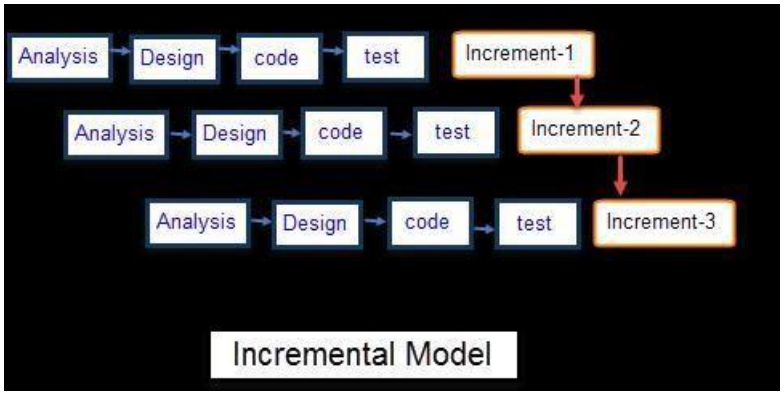
Less capital, less effort, and less labour intensive, as the primary cost and effort will focus primarily on creating, managing, and running a secure online portal.

Increased number of voters as individual will find it easier and more convenient to vote, especially those abroad.

## 1.8 Methodology/Procedure :-

For the development of project the designing of database was done on PHPMYADMIN, back end was coded in basic PHP and for frontend we used the same basic PHP codes.

A process model for software engineering is choose based on the nature of the project and application, the methods and tools to be used, and the controls and deliverables that are required. The model is used to build the ―ONLINE VOTING SYSTEM software is ―The Incremental Model.




An Incremental module includes:
i.) System development is broken down into many mini development projects.
ii.) Partial systems are successively built to produce a final total system.
iii.) Highest priority requirement is tackled first.
iv.) Once the requirement is developed, requirement for that increment are frozen.

Software methodologies are concerned with the process of creating software – not so much the technical side but the organizational aspects. Several software development approaches have been used since the origin of information technology.

## 1.9 Project Framework :-

A framework is a standardized set of concepts, practices, and criteria for dealing with a common type of problem, which can be used as a reference to help us approach and resolve new problems of a similar nature.

The aim of framework is to provide a common structure so that developers don't have to redo it from scratch and can reuse the code provided. In this way, frameworks allows us to cut out much of the work and save a lot of time.

## 1.10 Data and Information :-

Data collection plays an important role in a projects succession and also it plays an inevitable role in the timely completion of the project. The data in the project includes contact information of the clients and their respective feedbacks/complaints which is stored in a database. To assure safety, only the admin has proper access to the information provided by the clients.

### 1.10.1 Primary Source of Data :-

Primary data are the first hand data. The necessary information was collected from day to day observation, problems, instructions of supervisor. queries. and personal discussion with the staff of the organization.

1.Observation of working environment

2. Informal discussion and interaction with the staff of the library department.

### 1.10.2 Secondary Source of Data :-

The Secondary sources of data were collected in order to achieve the real and fact data as far as available.

The major sources of secondary data are as follows:

1. Annual reports of the concerned organization

2. Related websites

## 1.11 Tools Used :-

### 1.Xampp :

- Apache: (Application Server) Apache , often referred to as Server, is an open-source Java Servlet Container developed by the Apache Software Foundation.
- MySql Server: It handles large databases much faster than existing solutions. It consists of multi-threaded SQL server that supports different ends, several different client programs and libraries, administrative tools, and application programming interfaces (API s)

Its connectivity, speed, and security make MySQL Server highly suited for accessing databases on the Internet.

**2.Sublime Text 3.1.1-** Sublime Text is a sophisticated text editor for code, markup and prose. You'll love the slick user interface, extraordinary features and amazing performance.

**3.Web browsers**:- Google Chrome, Mozilla Firefox, Opera and Internet Explorer.

**4.Git Hub**:- GitHub Inc. is a web-based hosting service for version control using Git. It is mostly used for computer code. It offers all of the distributed version control and source code management functionality of Git as well as adding its own features.

## 1.12 Testing :-

Testing is evaluation of the software against requirements gathered from users and system specifications. Testing identifies important defects, flaws, or an error in the application code that must be fixed .It also assesses the feature of a system. Testing assesses the quality of the product.

### 1.12.1 Unit Testing :-

Unit testing refers to the testing certain functions and areas of the code. It gives the ability to verify that all the functions work as expected. Eventually, it helps to identify failures in the algorithms as well as logic to help improve the quality of the code that composes a certain function.

### 1.12.2 Integration Testing :-

Integration testing is basically a logical extension of unit testing. In simple words, two tested units are combined into a component and the interface between them is tested. It identifies problems that occur when different units are combined The different modules of this project have undergone integration testing while being merged.

### 1.12.3 System Testing :-

System testing tests the behavior of whole system as defined by the scope of the development project. It might include tests based on risks as well as requirement specifications, business process, use cases or other high level descriptions of system behavior, interactions with the operating systems and system resources. It is most often the final test performed to verify that the system meets the specification and its objectives. System testing has been performed at the completion of each feature and is still taking place to make improvements on the existing system.

# CHAPTER II: TASK AND ACTIVITIES PERFORMED

## 2.1 System Analysis :-

System Analysis is a detailed study of the various operations performed by a system and their relationships within and outside of the system. Here the key question is- why all problems exist in the present system? What must be done to solve the problem? Analysis begins when a user or manager begins a study of the program using existing system. During analysis, data collected on the various files, decision points and transactions handled by the present system. The commonly used tools in the system are Data Flow Diagram etc. Training, experience and common sense are required for collection of relevant information needed to develop the system. The success of the system depends largely on how clearly the problem is defined, thoroughly investigated and properly carried out through the choice of solution. A good analysis model should provide not only the mechanisms of problem understanding but also the frame work of the solution. Thus it should be studied thoroughly by collecting data about the system. Then the proposed system should be analyzed thoroughly in accordance with the needs. System analysis can be categorized into four parts.

- System planning and initial investigation
- Information Gathering
- Applying analysis tools for structured analysis
- Feasibility study
- Cost/ Benefit analysis.

In our existing system the recording of user's information is done manually, So taking more time for searching the information of the users. Another major disadvantage is that preparing the list of members that viewed any user's information takes more time. So, after conducting the feasibility study. I decided to make the manual Online Voting System to be computerized.

## 2.2 Preliminary Analysis :-

In the analysis the scope of project and risk associated with it was investigated and found out that Online voting System is one of the most demanding software in the field of politics. It was learnt that rather than using flexible and user-friendly computerized system, they are maintaining all their activities manually with wastage of valuable time. I tried to figured out that some employees were using excel to enter their data. So, through research it was found that the development will surely overcome the overall problems related with the cost and time.

## 2.3 Problem Analysis :-

It is related with the accessing the detailed information of a user and a candidate. So, I have initiated this project with simple requirements regarding the user and candidate information. Some of the problems for designing and developing this project are discussed below:

### 2.3.1 Design and Development Problem :-

- Problem in running XAMPP.
- To debug the error during the development.
- To show a relationship between entity.
- Minor error with database table.

## 2.4 Feasibility Analysis :-

A feasibility analysis is conducted once the problem is clearly understood. The purpose of the study is to determine whether the problem is worth solving. It is an analysis and evaluation of a proposed project to determine if it is technically feasible, feasible with the estimated cost and profitable.

## 2.4.1 Economical Analysis :-

The economic feasibility of a system is used to evaluate the benefits achieved from and the costs incurred for the project or system. This is done by a process called cost benefit analysis. It provides tangible and intangible benefits like reduction in cost, more flexibility, faster activities, proper database management, etc.

The application is medium scale application and is economically feasible for us to accomplish it. This involves cost benefits analysis. Thus there is no problem of high cost and cost benefits analysis.

## 2.4.2 Software Analysis :-

- Consumes a long-time for development of web application.
- Research and analysis cost to determine the actual need in real world.
- Implementation of application in the server and cost associated with the space in server.

## 2.4.3 Data Conversion :-

Another cost associated while implementing this web application is the data conversion. The previously used software database must be stored and backup such that there will be no loss in implementing a new web application which consumes time as well as money.

## 2.4.4 Operational Feasibility :-

The system is operational feasible as the system can be operate by normal users with basic computer skills without any additional trainings. We have developed this system with the willingness and ability to create, manage and operate the system which is easy for the end users to operate it.

# CHAPTER III: SYSTEM DESIGN

## 3.1 Use case Diagram :-

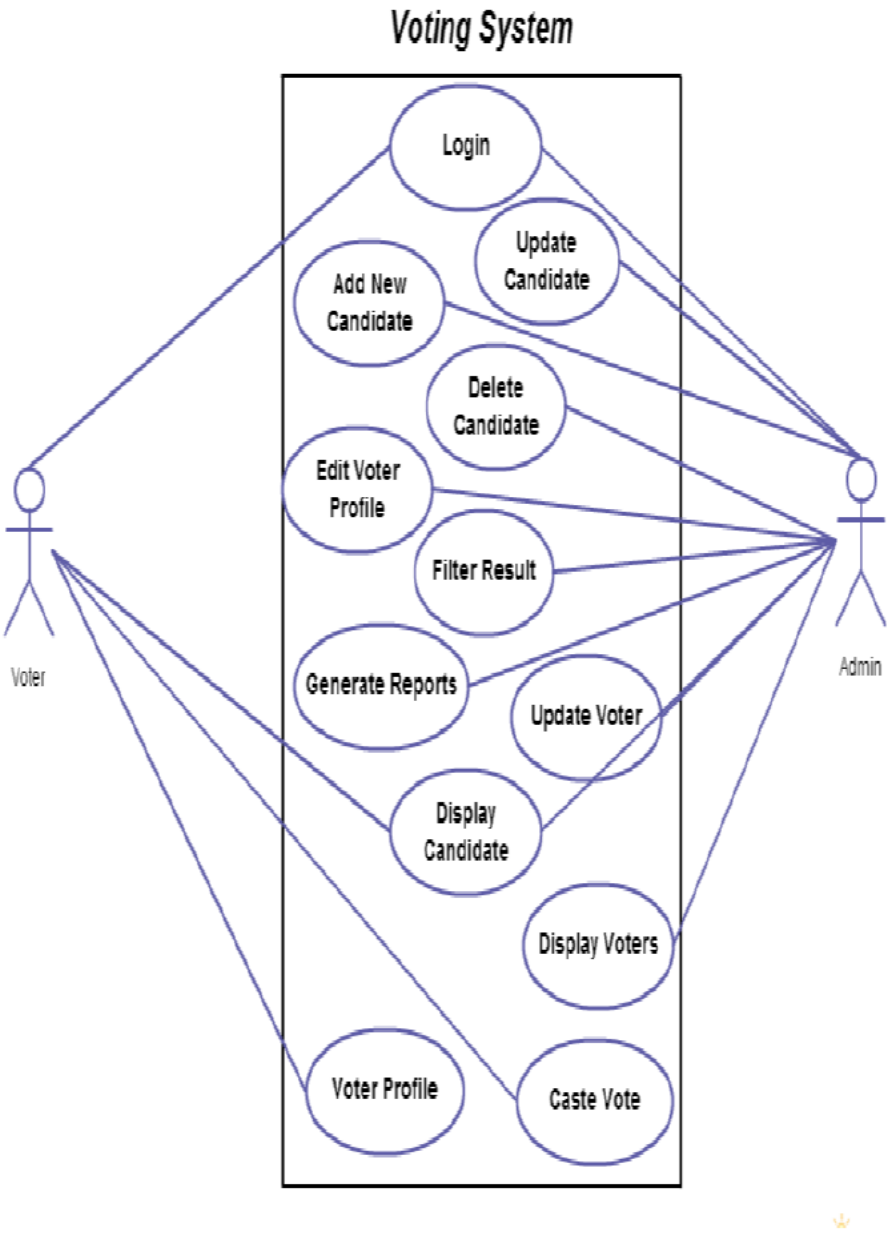



Figure 1: Use case Diagram

Above figure represents Use Case Diagram of the project and is a useful technique for identifying, clarifying, and organizing system requirements. It describes how a user uses a system to accomplish a particular goal. Use cases help ensure that the correct system is developed by capturing the requirements from the user's point of view.

## 3.2 Sequence Diagram :-

A sequence diagram is a type of interaction diagram because it describes how—and in what order—a group of objects works together. A sequence diagram specifically focuses on lifelines, or the processes and objects that live simultaneously, and the messages exchanged between them to perform a function before the lifeline ends.

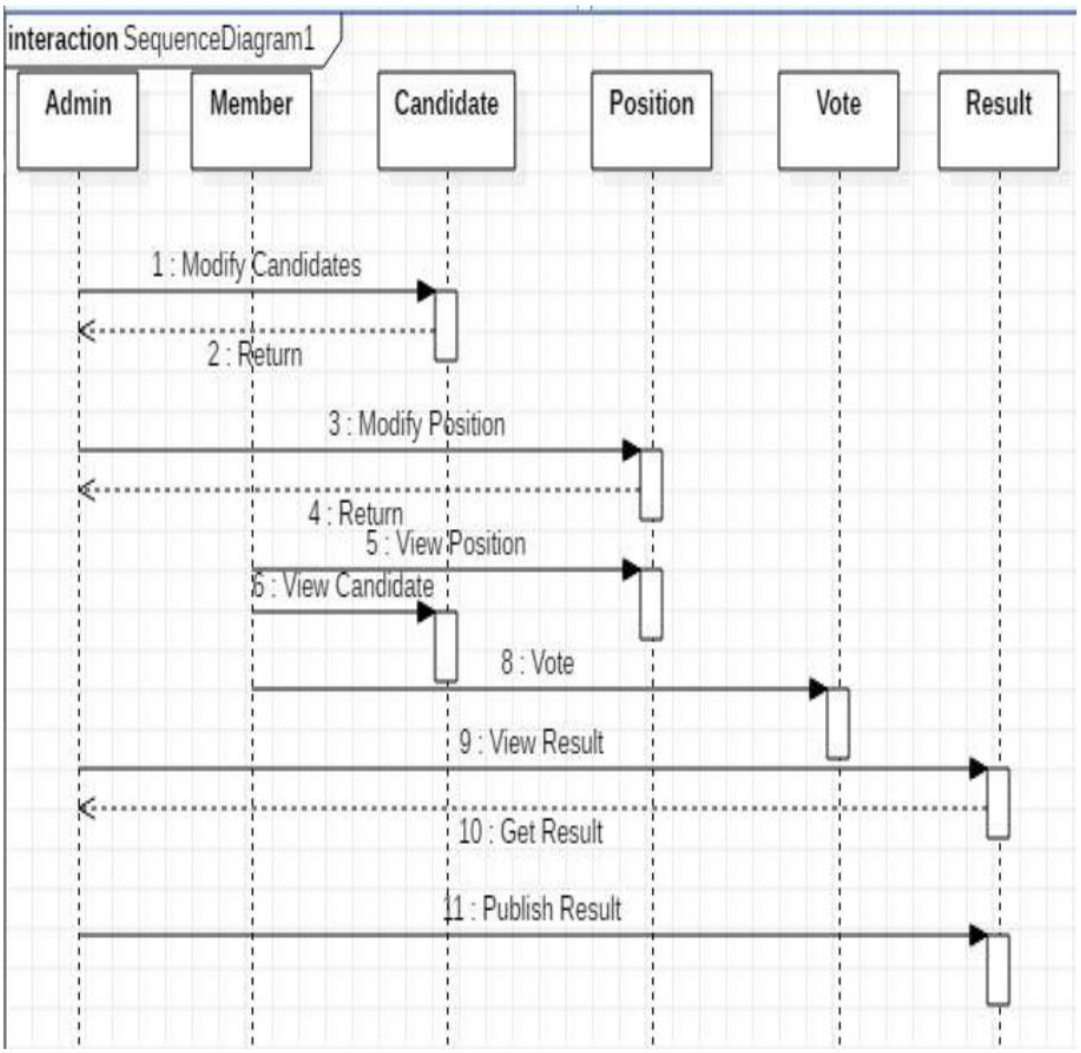



Figure 2: Sequence Diagram

Above diagram represents Sequence Diagram of the project which is a type of interaction diagram because it describes how—and in what order—a group of objects works together. A sequence diagram specifically focuses on lifelines, or the processes and objects that live simultaneously, and the messages exchanged between them to perform a function before the lifeline ends.

## 3.3 Data Flow Diagram :-

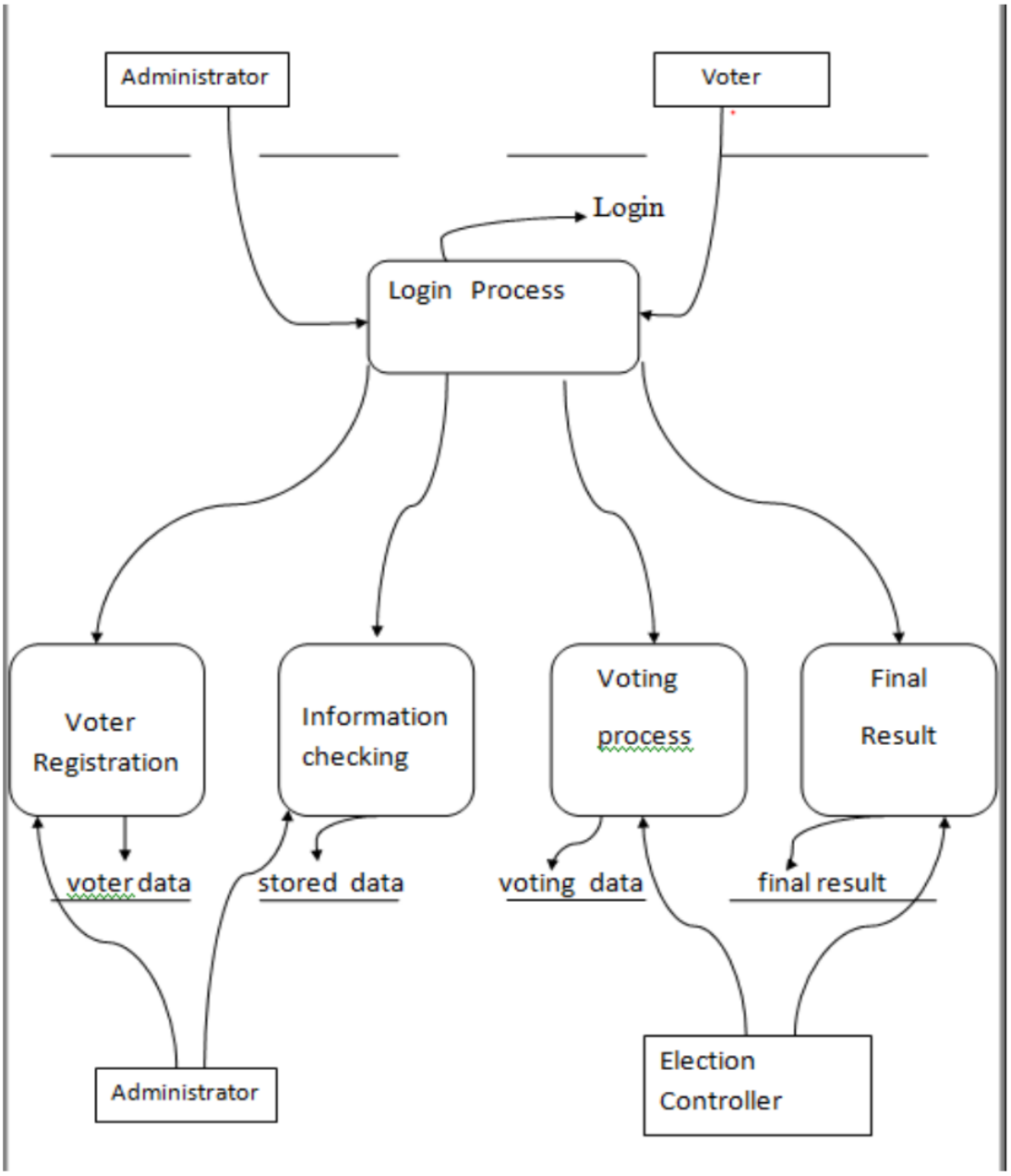



**Figure 3: Dataflow Diagram**

Above Data Flow Diagram, explains the overall structure of the system. It shows how and what types of services the client chooses and the amount of admin interaction in it.

## 3.4 Activity Diagram :-

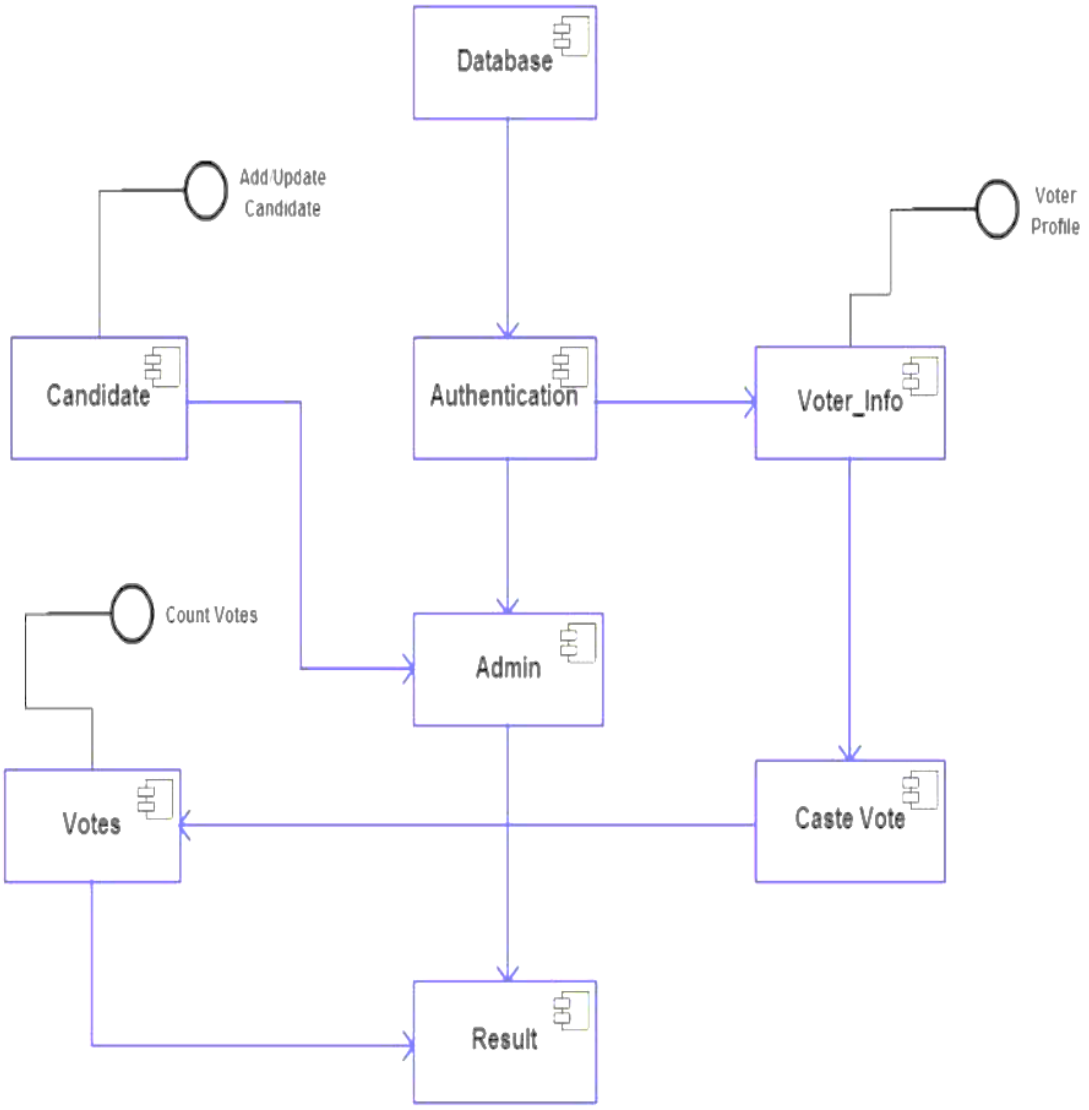



**Figure 4: Activity Diagram**

Above diagram describes the flow of control of a system. The flow can be sequential, concurrent or branched showing the overall functions of the system.

## 3.5 ER Diagram :-

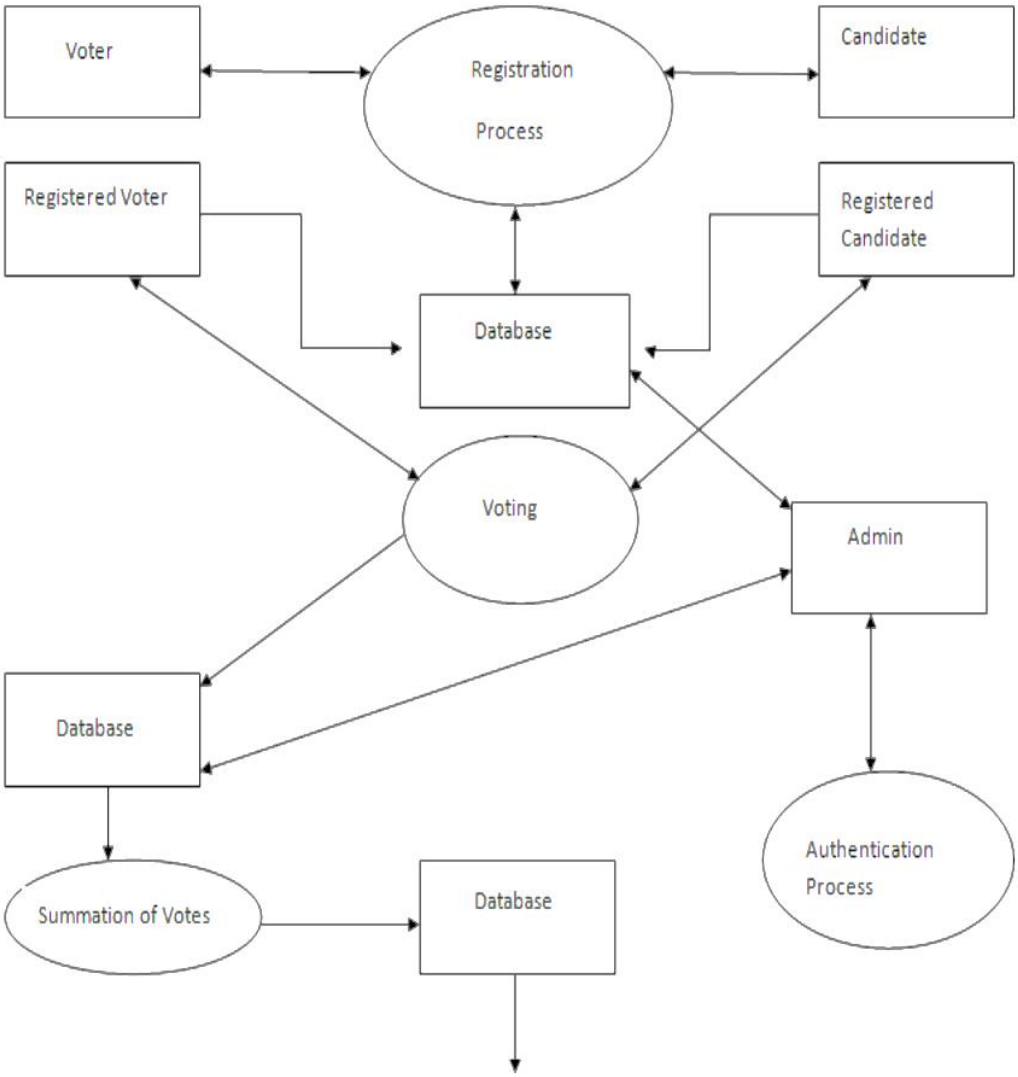
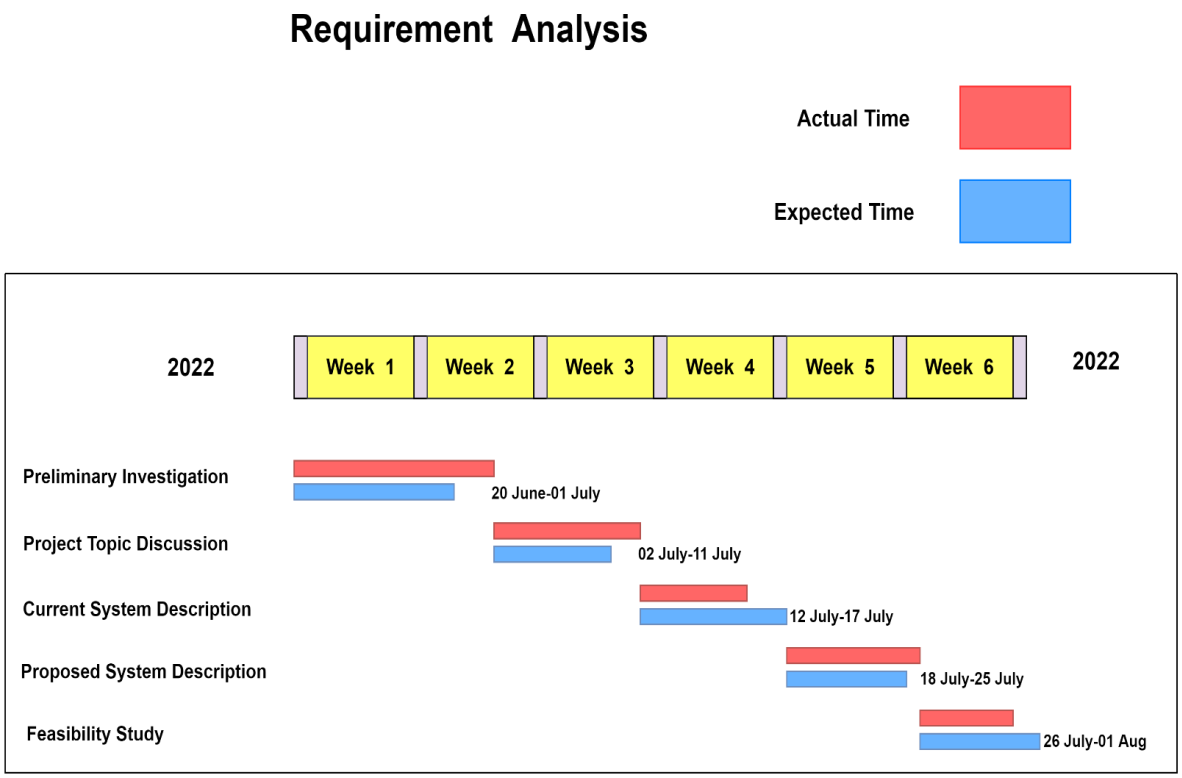
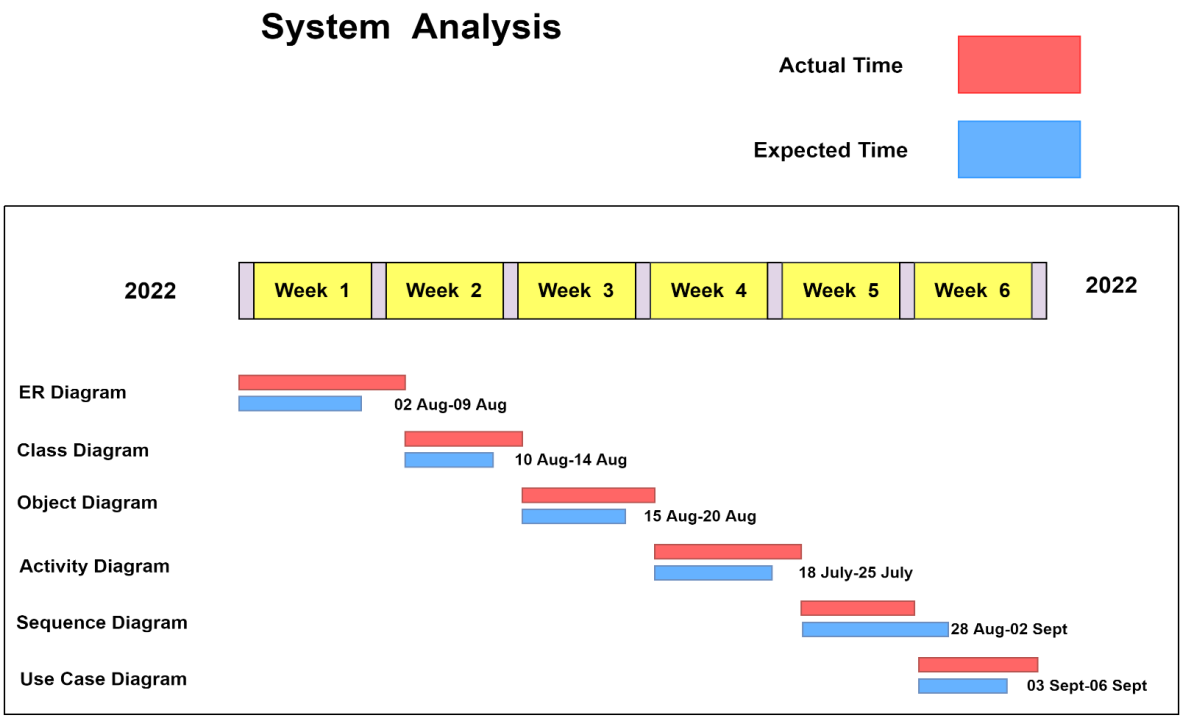



Figure 5: ER Diagram

ER diagram show all the relationships between entity sets stored in the database. It illustrates the logical structure of the database. It helps to visualize how data is connected in general ways.

## 3.6 Gantt Chart :-



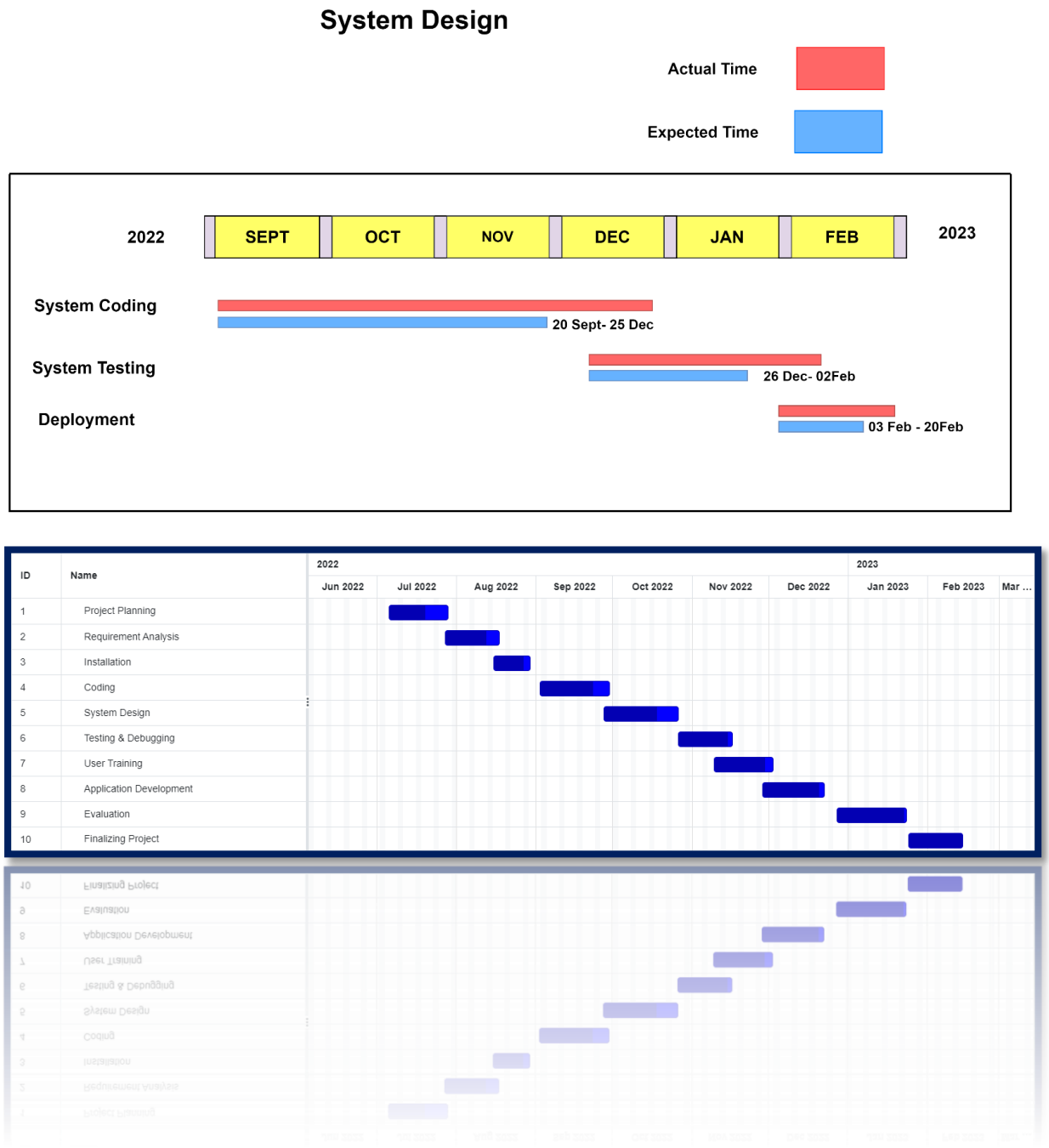



Figure 6: Gantt Chart

A Gantt chart illustrates how the project will run. It communicates with the client and shows them the expected date of project completion. It helps you assess how long a project should take, determine the resources needed, and plan the order in which you'll complete task.

# CHAPTER IV: TECHNOLOGY & TOOLS USED

## 4.1 Front-end Tools :-

**1. HTML:**
HTML is the language for describing the structure of Web pages. HTML gives authors the means to: Publish online documents with headings, text, tables, lists, photos, etc. Retrieve online information via hypertext links, at the click of a button. Design forms for conducting transactions with remote services, for use in searching for information, making reservations, ordering products, etc. Include spread-sheets, video clips, sound clips, and other applications directly in their documents.

**2. CSS:**
CSS is the language for describing the presentation of Web pages, including colors, layout, and fonts. It allows one to adapt the presentation to different types of devices, such as large screens, small screens, or printers. CSS is independent of HTML and can be used with any XML-based markup language. The separation of HTML from CSS makes it easier to maintain sites, share style sheets across pages, and tailor pages to different environments. This is referred to as the separation of structure (or: content) from presentation.

**3. JavaScript:**
JavaScript is a dynamic computer programming language. It is lightweight and most commonly used as a part of web pages, whose implementations allow client-side script to interact with the user and make dynamic pages. It is an interpreted programming language with object-oriented
Capabilities.

**4. JSP:**
JSP technology is used to create web application just like Servlet technology. It can be thought of as an extension to Servlet because it provides more functionality than servlet such as expression language, JST. The JSP syntax adds additional XML-like tags, called JSP actions to be used to invoke built-in functionality. Additionally, the technology allows for the creation of JSP tag libraries that act as extensions to the standard HTML or XML tags. Tag libraries provide a platform independent way of extending the capabilities of a Web server.

JSPs are compiled into Java Servlets by a JSP compiler. A JSP compiler may generate a servlet in Java code that is then compiled by the Java compiler, or it may generate byte code for the servlet directly. JSPs can also be interpreted on the-fly, reducing the time taken to reload changes. Architecturally JSP may be viewed as a high-level abstraction of servlets that is implemented as an extension of the Servlet 2.1 API. Both servlets and JSPs were originally developed at Sun Microsystems.

## 4.2 Back-end Tools :-

**1. MYSQL:**

MySQL was a free-software database engine originally developed and first released in 1995. MySQL is named after My, the daughter Michael Widenius, of one of the product's originators. It was originally produced under the GNU General Public License, in which source code is made freely available. MySQL is very popular for Web-hosting applications because of its plethora of Web-optimized features like HTML data types, and because it's available for free. It is part of the Linux, Apache, MySQL, PHP (LAMP) architecture, a combination of platforms that is frequently used to deliver and support advanced. Web applications. MySQL runs the back-end databases of some famous websites, including Wikipedia, Google and Facebook- a testament to its stability and robustness despite its decentralized, free-for-all philosophy. MySQL Features:
MySQL is a database management system.
MySQL is a relational database management system.

MySQL software is Open Source.

The MySQL Database Server is very fast, reliable, and easy to use.

**2.Database:**

A database is a collection of information that is organized so that it can be easily accessed, managed and updated. Data is organized into rows, columns and tables, and it is indexed to make it easier to find relevant information. Data gets updated, expanded and deleted as new information is added. Databases process workloads to create and update themselves, querying the data they contain and running applications against it. Contributor(s): Allan Leake and Adam Hughes Computer databases typically contain aggregations of data records or files, such as transactions, product catalogs and inventories, and customer profiles. Typically,

a database manager provides users with the ability to control read/write access, specify report generation and analyze usage.

### 3. Relational Database

There are different ways to organize data in different ways in database; relational databases are one of the most effective. Relational database systems are an application of mathematical set. A table represents some class of objects that are important to an organization. For example, a company may have a database with a table for employees, another table for customer, and another for stores. Each table is built of columns and rows. Each column represents some attribute of the object represented by the table. For example, an Employee table that have a column such as First Name, Last Name, EmpId, Department, and Job title.

A database system comprises two components:
Programs that provide an interface for client-based users to access data.
The database structure that manages and stores the data on the serve.

### 3.NetBeans IDE:

NetBeans IDE is the official IDE for Java 8. With its editors, code analyzers, and converters, you can quickly and smoothly upgrade your applications to use new Java 8 language constructs, such as lambdas, functional operations, and method references. Batch analyzers and converters are provided to search through multiple applications at the same time, matching patterns for conversion to new Java 8 language constructs. With its constantly improving Java Editor, many rich features and an extensive range of tools, templates and samples, NetBeans IDE sets the standard for developing with cutting edge technologies out of the box.

## 4.3 Operating System :-

1. Window95: Windows 95 was capable of running DOS and Windows-based applications, although it had completely removed DOS as the underlying platform, unlike previous versions of Windows. This helped in overcoming two limitations: eight-character file names and memory-related problems. Windows 95 sported new technical features along with updating existing features. It brought updated visual styles and interface advancements. It had new and improved Windows control and introduced the desktop, which was represented as a folder which holds different files. Shortcuts, icons and the recycle bin were introduced in Windows 95. An improved help system was provided with a help

window which could provide information in the content window. The "plug & play" feature was introduced, which allowed automatic recognition of hardware. Another significant feature introduced was the registry; this helped in combining the configuration files essentially into two files, which also allowed easier location of the system configurations. Windows 95 enhanced the memory handling processes compared to previous versions. Another user-friendly feature introduced from Windows 95 was the representation of files and folders as icons. File modification was possible through menus and the drives were all listed in the folder called "My Computer." Windows 95 came with built-in network support for different protocols including ones for Internet access. The 32-bit application support gave Windows 95 the ability to execute complex tasks and applications more efficiently.

## 4.4 Additional Software requirements:

**1. Glassfish Server:**

Glassfish is a Java application server project created by Sun Microsystems that allows many developers to generate enterprise technologies that are convenient and scalable, as well as additional services that can be installed based on preference. It is a free, dual-licensed software under the GNU General Public License (GPL) and the Common Development and Distribution License (CDDL). Glassfish was acquired by Oracle in 2010. Glassfish was developed based on source code that was released by Sun and Oracle's TopLink persistence system. The project was launched in 2005 and the first version that supported Java EE 5 was released in 2006. The reference implementation of Java EE is Glassfish, so it supports JMS, Java Server Pages, Enterprise JavaBeans, RMI, JPA and servlets. Because of its nature, developers can create scalable and portable applications that easily integrate with legacy systems and technologies

**2. Apache:**

Apache is the most widely used web server software. Developed and maintained by Apache Software Foundation, Apache is an open-source software available for free. It runs on 67% of all webservers in the world. It is fast, reliable, and secure. It can be highly customized to meet the needs of many different environments by using extensions and modules. Most WordPress hosting providers use Apache as their web server software. However, WordPress can run on another web server software as well.

**3. Web Server:**

Web server is like a restaurant host. When you arrive in a restaurant, the host greets you, checks your booking information and takes you to your table. Similar to the restaurant host, the web server checks for the web page you have requested and fetches it for your viewing pleasure. However, A web server is not just your host but also your server. Once it has found the web page you requested, it also serves you the web page. It handles your communications with the website (the kitchen), handles your requests, makes sure that other staff (modules) are ready to serve you. It is also the bus boy, as it leans the tables (memory, cache, modules) and clears them for new customers. So basically a web server is the software that receives your request to access a web page. It runs a few security checks on your HTTP request and takes you to the web page.

**4. Internet Browser:**

A Browser is a software program used to view HTML documents within the World Wide Web. The primary goal of a web browser is to send and receive data from the Web Server that provides the Web page. The server sends the web page in the HTML markup language and the browser interprets that HTML code, presenting the page to the user.

**5. Netscape Navigator: -**

Netscape navigator created by Netscape Corporation, one of the most popular browsers available today. Netscape is available on windows, Macintosh and X windows platforms.

**6. Internet Explorer: -**

Internet is the Microsoft‘s contribution to the Web browser community. The Internet Explorer is based on Microsoft’s ActiveX technology and is available for Windows, Windows NT, and Macintosh platforms. One significant capability of the Internet Explorer is that support the embedded intrinsic and ActiveX controls within the Web pages, with which JavaScript can interact.

**7. Other Browsers:** Varieties of additional browsers are available, and because the Internet is evolving so rapidly, other new browser may have come into existence.

# CHAPTER V: HARDWARE REQUIREMENT

## 5.1 System Configuration

- Processor: Pentium
- RAM: 4GB
- Hard Disk: 1TB
- Speed: 1.1GHz
- Memory: 1 GB RAM

# CHAPTER VI: IMPLEMENTATION & TESTING

## 6.1 Test Case :-

| Test Scenario ID | Test Scenario Description | Test Case ID | Test Case Description |
|---|---|---|---|
| TCS_PRS_001 | Verify the login functionality | TC_PRS_Login_001 | Enter a valid email & valid password |
| TCS_PRS_002 | Verify the login functionality | TC_PRS_Login_002 | Enter a valid email & invalid password |
| TCS_PRS_003 | Verify the login functionality | TC_PRS_Login_003 | Enter an invalid email & valid password |
| TCS_PRS_004 | Verify the login functionality | TC_PRS_Login_004 | Enter an invalid email & invalid password |
| TCS_PRS_005 | Verify the login functionality | TC_PRS_Login_005 | Enter none of the credentials |
| TCS_PRS_006 | Verify the login functionality | TC_PRS_Login_006 | Enter only password |
| TCS_PRS_007 | Verify the login functionality | TC_PRS_Login_007 | Enter only email |

| Test steps | Pre-Conditions | Test data | Post Conditions |
|---|---|---|---|
| 1.Enter valid email<br>2. Enter valid password<br>3. Click login button | Valid URL<br>Test Data | Email: ghimire.awash15@gmail.com<br>Password: Admin123 | Redirect to dashboard page |
| 1.Enter valid email<br>2. Enter invalid password<br>3. Click login button | Valid URL<br>Test Data | Email: ghimire.awash15@gmail.com<br>Password: ******** | Error: Invalid Email or Password |
| 1.Enter invalid email<br>2. Enter valid password<br>3. Click login button | Valid URL<br>Test Data | Email: *********<br>Password: Admin123 | Error: Invalid Email or Password |
| 1.Enter invalid email<br>2. Enter invalid password<br>3. Click login button | Valid URL<br>Test Data | Email: *********<br>Password: ******* | Error: Invalid Email or Password |
| 1. Click login button | Valid URL<br>Test Data | Email:<br>Password: | Redirect to dashboard page |
| 1.Enter password<br>2.Click Login | Valid URL<br>Test Data | Email:<br>Password: Admin123 | Please fill out this field |

| | | | |
|---|---|---|---|
| 1.Enter email<br>2.Click Login | Valid URL<br>Test Data | Email: ghimire.awash15@gmail.com<br>Password: | Please fill out this field |

| Expected Results | Actual Results | Status |
|---|---|---|
| Login Successful | Login Successful | Pass |
| Error: Invalid Email or Password | Login Successful | Fail |
| Error: Invalid Email or Password | Error: Invalid Email or Password | Pass |
| Error: Invalid Email or Password | Error: Invalid Email or Password | Pass |
| Message: Please fill out this field | Login Successful | Fail |
| Message: Please fill out this field | Error: Please fill out this field | Pass |
| Message: Please fill out this field | Error: Please fill out this field | Pass |

A test case is a specification of the inputs, execution conditions, testing procedure, and expected results that define a single test to be executed to achieve a particular software testing objective, such as to exercise a particular program path or to verify compliance with a specific requirement.

## 6.2 Findings :-

After a series of testing and debugging, the project was ready for projection and is believed that it will achieve the goals that it is designed to get, which is to vote in ease.

**Application's Output**

## 6.3 Backend :-

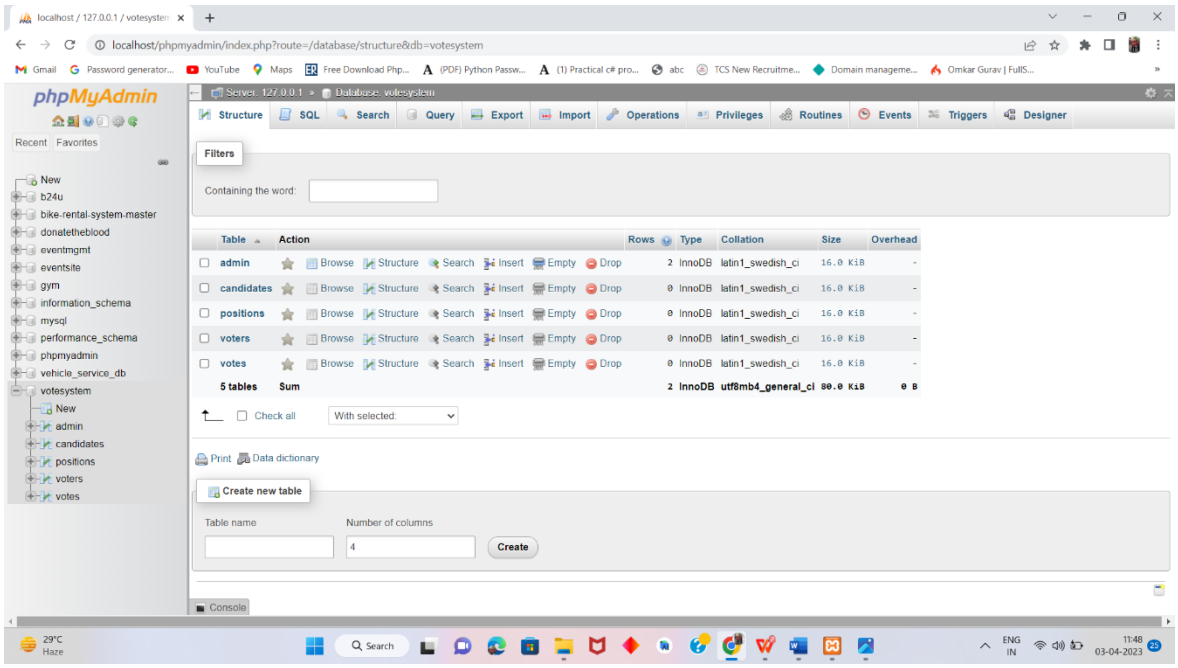



Figure 7: Database

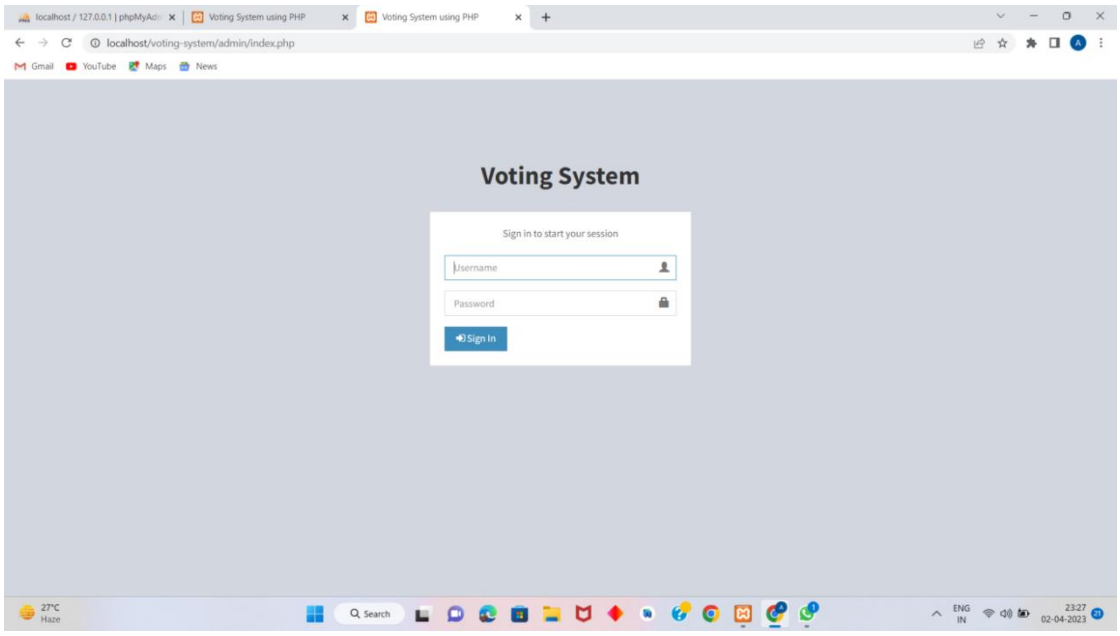



Figure 8: Admin Login

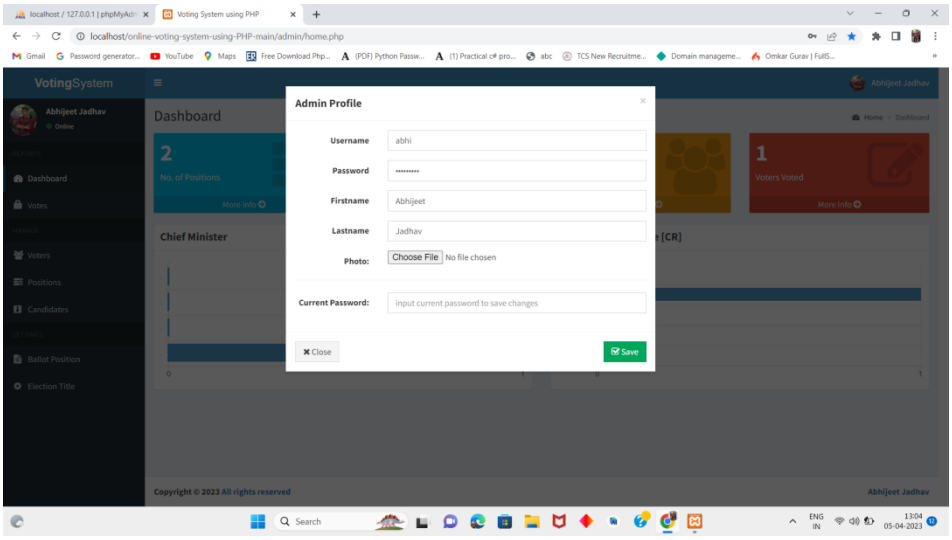



Figure 9: Manage Admin

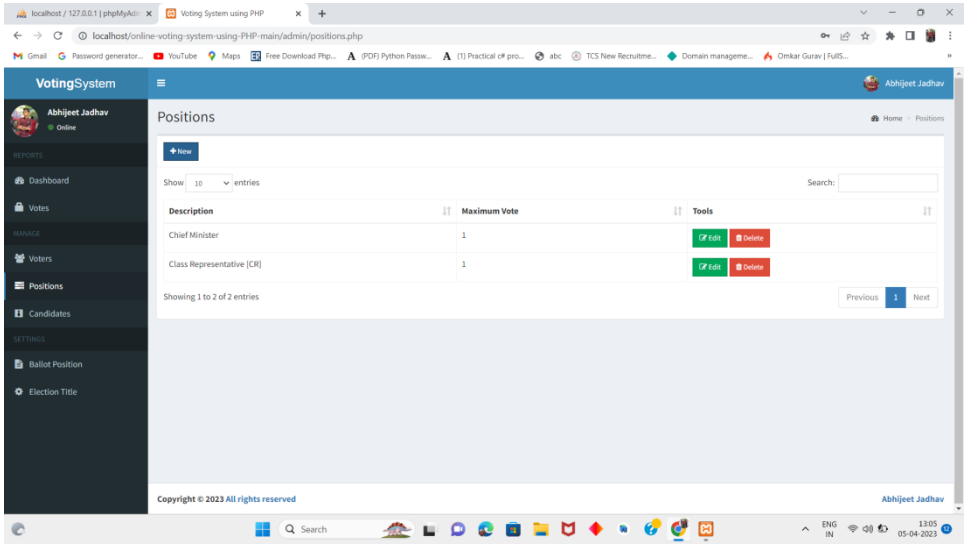



Figure 10: Manage Position

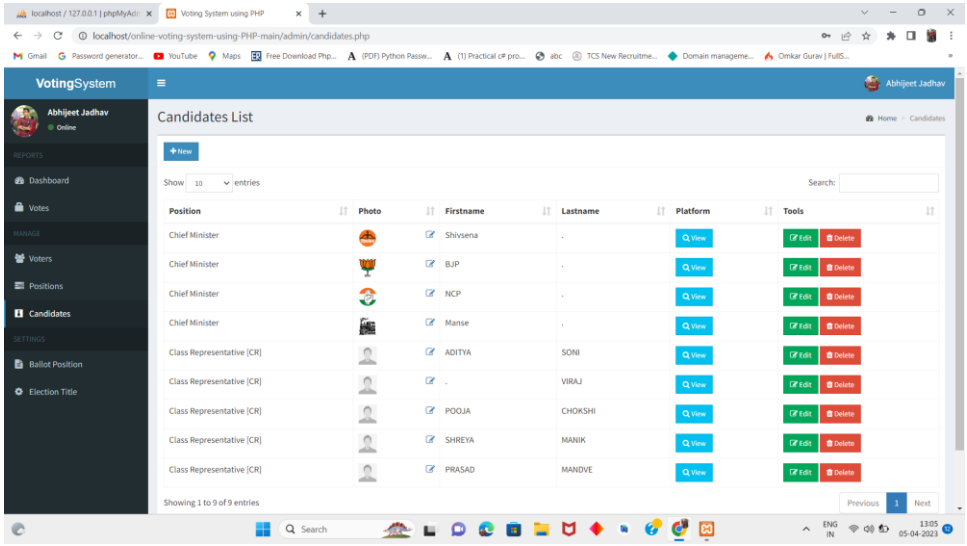



Figure 11: Manage Candidate

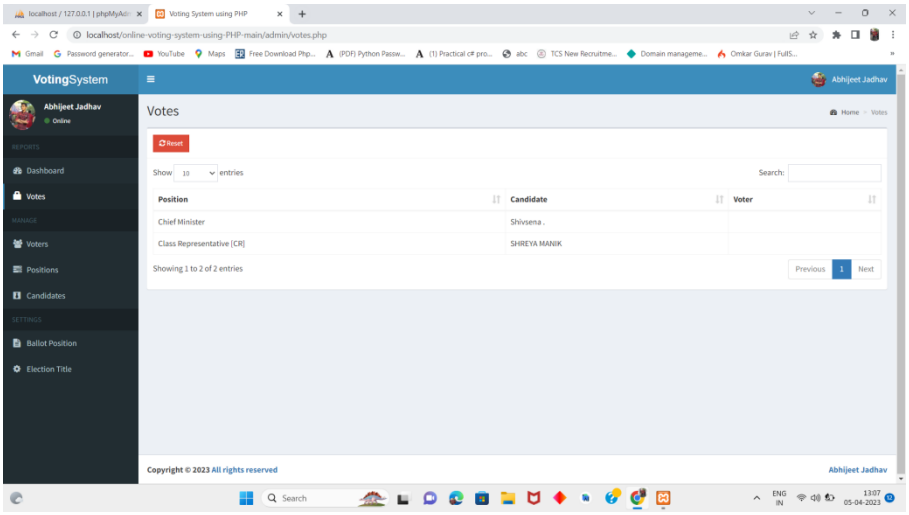



Figure 12: View Result

## 6.4 Frontend :-

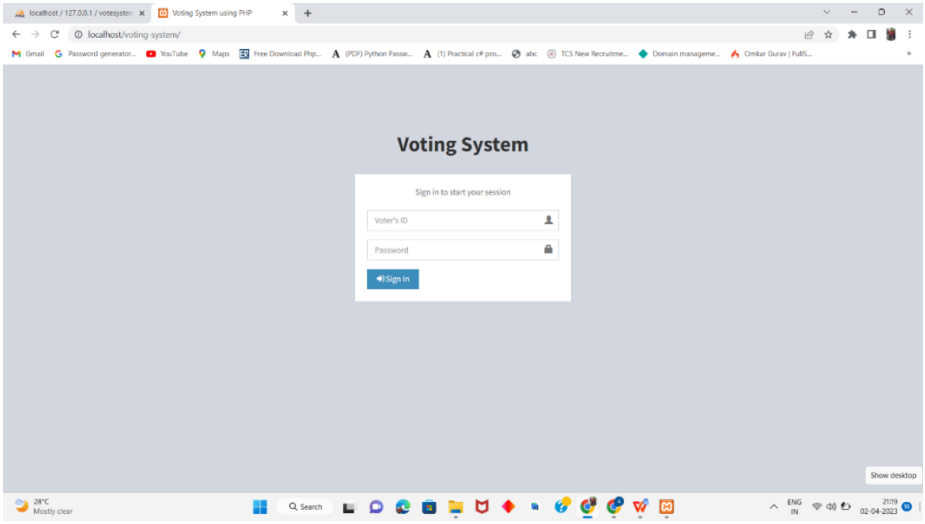



Figure 13: Member Login

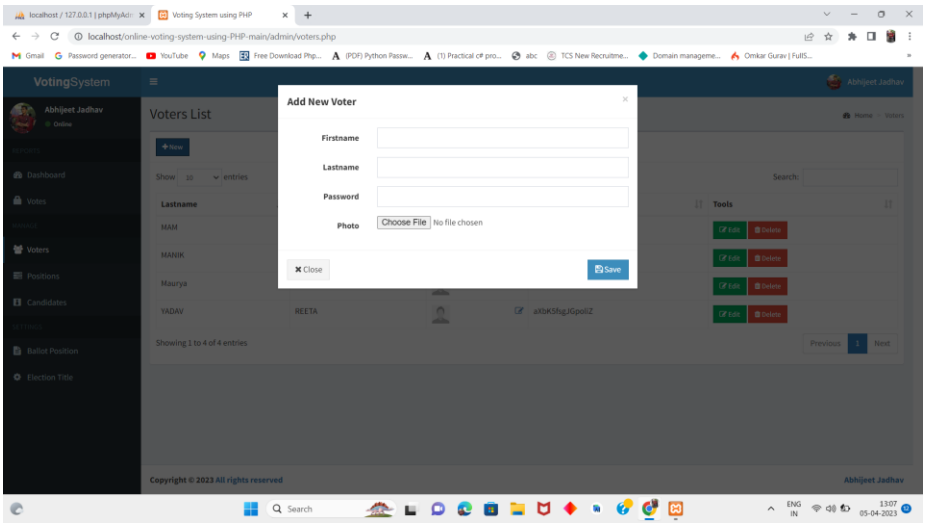



Figure 14: Add Member

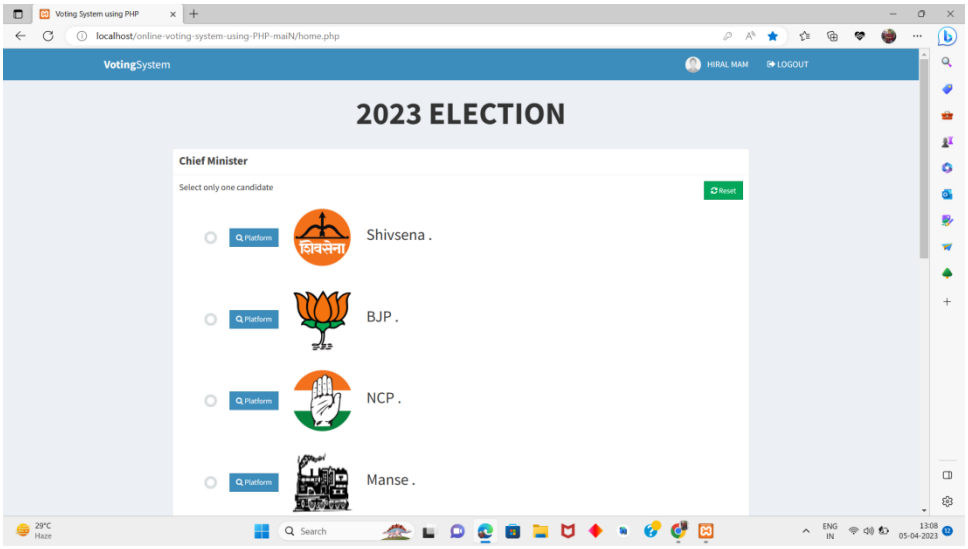



Figure 15: Vote Candidate

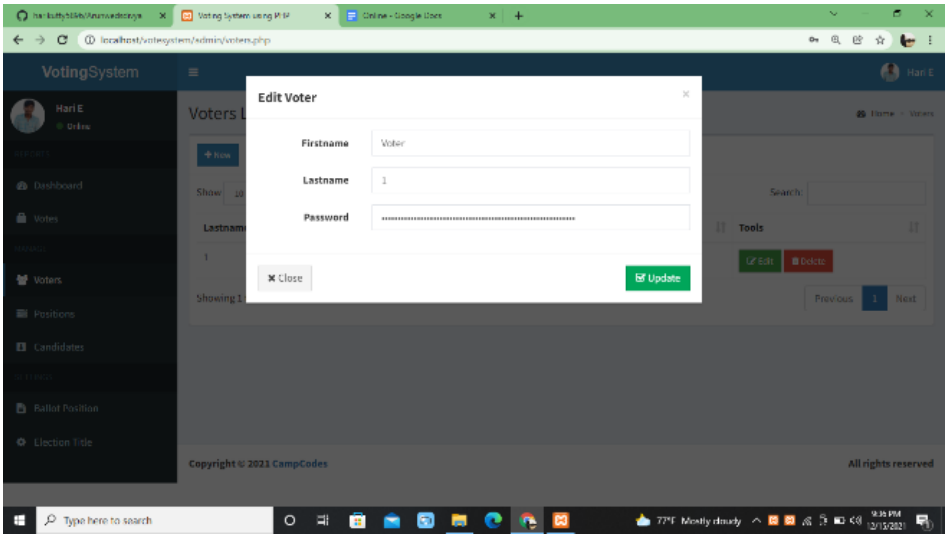



Figure 16: View/Update Profile

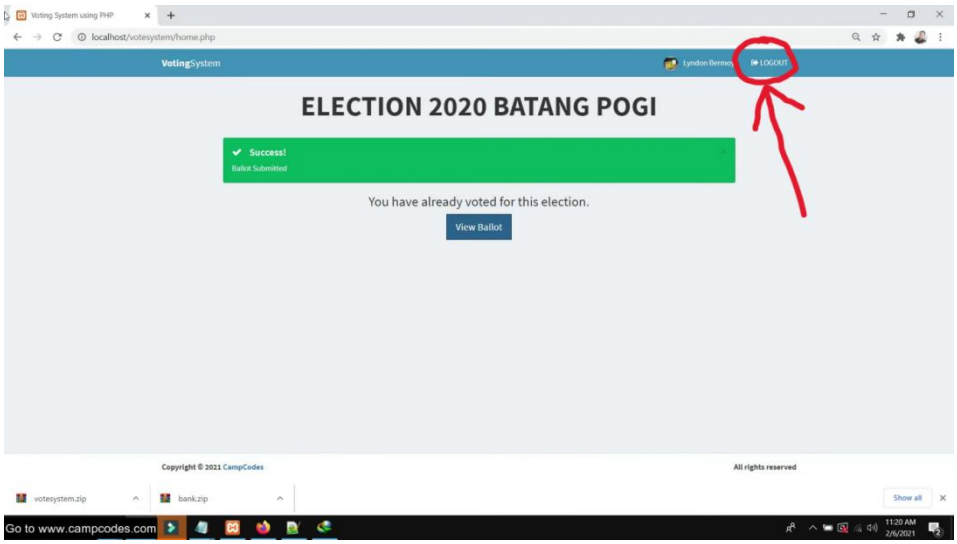



Figure 17: Member Log Out

# CHAPTER VII: CODING

## home.php:-

```
<?php include 'includes/session.php'; ?>
<?php include 'includes/header.php'; ?>
<body class="hold-transition skin-blue layout-top-nav">
<div class="wrapper">

  <?php include 'includes/navbar.php'; ?>

   <div class="content-wrapper">
    <div class="container">

      <!-- Main content -->
      <section class="content">
       <?php
          $parse = parse_ini_file('admin/config.ini', FALSE, INI_SCANNER_RAW);
          $title = $parse['election_title'];
       ?>
       <h1 class="page-header text-center title"><b><?php echo strtoupper($title); ?></b></h1>
       <div class="row">
          <div class="col-sm-10 col-sm-offset-1">
            <?php
              if(isset($_SESSION['error'])){
                ?>
                <div class="alert alert-danger alert-dismissible">
                  <button type="button" class="close" data-dismiss="alert" aria-
hidden="true">&times;</button>
                  <ul>
                    <?php
                      foreach($_SESSION['error'] as $error){
                        echo "
                          <li>".$error."</li>
                        ";
                      }
                    ?>
                  </ul>
                </div>
                <?php
                unset($_SESSION['error']);

              }
              if(isset($_SESSION['success'])){
                echo "
                  <div class='alert alert-success alert-dismissible'>
```

```
                    <button type='button' class='close' data-dismiss='alert' aria-
hidden='true'>&times;</button>
                    <h4><i class='icon fa fa-check'></i> Success!</h4>
                  ".$_SESSION['success']."
                  </div>
                ";
                unset($_SESSION['success']);
              }

            ?>

            <div class="alert alert-danger alert-dismissible" id="alert" style="display:none;">
              <button type="button" class="close" data-dismiss="alert" aria-
hidden="true">&times;</button>
              <span class="message"></span>
            </div>

            <?php
              $sql = "SELECT * FROM votes WHERE voters_id = '".$voter['id']."'";
              $vquery = $conn->query($sql);
              if($vquery->num_rows > 0){
                ?>
                <div class="text-center">
                  <h3>You have already voted for this election.</h3>
                  <a href="#view" data-toggle="modal" class="btn btn-flat btn-primary btn-lg">View
Ballot</a>
                </div>
                <?php
              }
              else{
                ?>
                <!-- Voting Ballot -->
                <form method="POST" id="ballotForm" action="submit_ballot.php">
                  <?php
                    include 'includes/slugify.php';

                    $candidate = '';
                    $sql = "SELECT * FROM positions ORDER BY priority ASC";
                    $query = $conn->query($sql);
                    while($row = $query->fetch_assoc()){
                      $sql = "SELECT * FROM candidates WHERE position_id='".$row['id']."'";
                      $cquery = $conn->query($sql);
                      while($crow = $cquery->fetch_assoc()){
                        $slug = slugify($row['description']);
                        $checked = '';
                        if(isset($_SESSION['post'][$slug])){
                          $value = $_SESSION['post'][$slug];
```

```
                        if(is_array($value)){
                            foreach($value as $val){
                                if($val == $crow['id']){
                                    $checked = 'checked';
                                }
                            }
                        }
                        else{
                            if($value == $crow['id']){
                                $checked = 'checked';
                            }
                        }
                    }
                    $input = ($row['max_vote'] > 1) ? '<input type="checkbox" class="flat-red '.$slug.'" name="'.$slug."[]".'" value="'.$crow['id'].'" '.$checked.'>' : '<input type="radio" class="flat-red '.$slug.'" name="'.slugify($row['description']).'" value="'.$crow['id'].'" '.$checked.'>';
                    $image = (!empty($crow['photo'])) ? 'images/'.$crow['photo'] : 'images/profile.jpg';
                    $candidate .= '
                        <li>
                            '.$input.'<button type="button" class="btn btn-primary btn-sm btn-flat clist platform" data-platform="'.$crow['platform'].'" data-fullname="'.$crow['firstname'].' '.$crow['lastname'].'"><i class="fa fa-search"></i> Platform</button><img src="'.$image.'" height="100px" width="100px" class="clist"><span class="cname clist">'.$crow['firstname'].' '.$crow['lastname'].'</span>
                        </li>
                    ';
                }

                $instruct = ($row['max_vote'] > 1) ? 'You may select up to '.$row['max_vote'].' candidates' : 'Select only one candidate';

                echo '
                    <div class="row">
                        <div class="col-xs-12">
                            <div class="box box-solid" id="'.$row['id'].'">
                                <div class="box-header with-border">
                                    <h3 class="box-title"><b>'.$row['description'].'</b></h3>
                                </div>
                                <div class="box-body">
                                    <p>'.$instruct.'
                                        <span class="pull-right">
                                            <button type="button" class="btn btn-success btn-sm btn-flat reset" data-desc="'.slugify($row['description']).'"><i class="fa fa-refresh"></i> Reset</button>
                                        </span>
                                    </p>
                                    <div id="candidate_list">
                                        <ul>
```

```
                                        '.$candidate.'
                                    </ul>
                                </div>
                            </div>
                        </div>
                    </div>
                ';

                $candidate = '';

            }

        ?>
        <div class="text-center">
            <button type="button" class="btn btn-success btn-flat" id="preview"><i class="fa
fa-file-text"></i> Preview</button>
            <button type="submit" class="btn btn-primary btn-flat" name="vote"><i
class="fa fa-check-square-o"></i> Submit</button>
        </div>
    </form>
    <!-- End Voting Ballot -->
    <?php
    }
 ?>

        </div>
      </div>
    </section>

    </div>
  </div>

  <?php include 'includes/footer.php'; ?>
  <?php include 'includes/ballot_modal.php'; ?>
</div>

<?php include 'includes/scripts.php'; ?>
<script>
$(function(){
  $('.content').iCheck({
    checkboxClass: 'icheckbox_flat-green',
    radioClass: 'iradio_flat-green'
  });

  $(document).on('click', '.reset', function(e){
    e.preventDefault();
    var desc = $(this).data('desc');
```

```
    $('.'+desc).iCheck('uncheck');
  });

  $(document).on('click', '.platform', function(e){
    e.preventDefault();
    $('#platform').modal('show');
    var platform = $(this).data('platform');
    var fullname = $(this).data('fullname');
    $('.candidate').html(fullname);
    $('#plat_view').html(platform);
  });

  $('#preview').click(function(e){
    e.preventDefault();
    var form = $('#ballotForm').serialize();
    if(form == ''){
      $('.message').html('You must vote atleast one candidate');
      $('#alert').show();
    }
    else{
      $.ajax({
        type: 'POST',
        url: 'preview.php',
        data: form,
        dataType: 'json',
        success: function(response){
          if(response.error){
            var errmsg = '';
            var messages = response.message;
            for (i in messages) {
              errmsg += messages[i];
            }
            $('.message').html(errmsg);
            $('#alert').show();
          }
          else{
            $('#preview_modal').modal('show');
            $('#preview_body').html(response.list);
          }
        }
      });
    }

  });

});
</script>
</body></html>
```

# index.php :-

```
<?php
  session_start();
  if(isset($_SESSION['admin'])){
    header('location: admin/home.php');
  }

  if(isset($_SESSION['voter'])){
   header('location: home.php');
  }
?>
<?php include 'includes/header.php'; ?>
<body class="hold-transition login-page">
<div class="login-box">
  <div class="login-logo">
    <b>Voting System</b>
  </div>

  <div class="login-box-body">
    <p class="login-box-msg">Sign in to start your session</p>

    <form action="login.php" method="POST">
      <div class="form-group has-feedback">
        <input type="text" class="form-control" name="voter" placeholder="Voter's ID" required>
        <span class="glyphicon glyphicon-user form-control-feedback"></span>
      </div>
     <div class="form-group has-feedback">
      <input type="password" class="form-control" name="password" placeholder="Password"
required>
       <span class="glyphicon glyphicon-lock form-control-feedback"></span>
     </div>
      <div class="row">
        <div class="col-xs-4">
          <button type="submit" class="btn btn-primary btn-block btn-flat" name="login"><i
class="fa fa-sign-in"></i> Sign In</button>
        </div>
      </div>
    </form>
  </div>
  <?php
    if(isset($_SESSION['error'])){
      echo "
        <div class='callout callout-danger text-center mt20'>
          <p>".$_SESSION['error']."</p>
        </div>
```

```
        ";
        unset($_SESSION['error']);
      }
    ?>
</div>

<?php include 'includes/scripts.php' ?>
</body>
</html>
```

## Login.php :-

```
<?php
  session_start();
  include 'includes/conn.php';

  if(isset($_POST['login'])){
    $voter = $_POST['voter'];
    $password = $_POST['password'];

    $sql = "SELECT * FROM voters WHERE voters_id = '$voter'";
    $query = $conn->query($sql);

    if($query->num_rows < 1){
      $_SESSION['error'] = 'Cannot find voter with the ID';
    }
    else{
      $row = $query->fetch_assoc();
      if(password_verify($password, $row['password'])){
        $_SESSION['voter'] = $row['id'];
      }
      else{
        $_SESSION['error'] = 'Incorrect password';
      }
    }

  }
  else{
    $_SESSION['error'] = 'Input voter credentials first';
  }

  header('location: index.php');

?>
```

## Logout.php :-

```
<?php
  session_start();
  session_destroy();

  header('location: index.php');
?>
```

## Candidates.php :-

```
<?php include 'includes/session.php'; ?>
<?php include 'includes/header.php'; ?>
<body class="hold-transition skin-blue sidebar-mini">
<div class="wrapper">

 <?php include 'includes/navbar.php'; ?>
 <?php include 'includes/menubar.php'; ?>

 <!-- Content Wrapper. Contains page content -->
 <div class="content-wrapper">
  <!-- Content Header (Page header) -->
  <section class="content-header">
   <h1>
    Candidates List
   </h1>
   <ol class="breadcrumb">
    <li><a href="#"><i class="fa fa-dashboard"></i> Home</a></li>
    <li class="active">Candidates</li>
   </ol>
  </section>
  <!-- Main content -->
  <section class="content">
   <?php
    if(isset($_SESSION['error'])){
     echo "
      <div class='alert alert-danger alert-dismissible'>
       <button type='button' class='close' data-dismiss='alert' aria-hidden='true'>&times;</button>
       <h4><i class='icon fa fa-warning'></i> Error!</h4>
       ".$_SESSION['error']."
      </div>
     ";
     unset($_SESSION['error']);
```

```
    }
    if(isset($_SESSION['success'])){
     echo "
      <div class='alert alert-success alert-dismissible'>
       <button type='button' class='close' data-dismiss='alert' aria-hidden='true'>&times;</button>
       <h4><i class='icon fa fa-check'></i> Success!</h4>
       ".$_SESSION['success']."
      </div>
     ";
     unset($_SESSION['success']);
    }
   ?>
   <div class="row">
    <div class="col-xs-12">
     <div class="box">
      <div class="box-header with-border">
       <a href="#addnew" data-toggle="modal" class="btn btn-primary btn-sm btn-flat"><i
class="fa fa-plus"></i> New</a>
      </div>
      <div class="box-body">
       <table id="example1" class="table table-bordered">
        <thead>
         <th class="hidden"></th>
         <th>Position</th>
         <th>Photo</th>
         <th>Firstname</th>
         <th>Lastname</th>
         <th>Platform</th>
         <th>Tools</th>
        </thead>
        <tbody>
         <?php
          $sql = "SELECT *, candidates.id AS canid FROM candidates LEFT JOIN positions ON
positions.id=candidates.position_id ORDER BY positions.priority ASC";
          $query = $conn->query($sql);
          while($row = $query->fetch_assoc()){
           $image = (!empty($row['photo'])) ? '../images/'.$row['photo'] : '../images/profile.jpg';
           echo "
            <tr>
             <td class='hidden'></td>
             <td>".$row['description']."</td>
             <td>
              <img src='".$image."' width='30px' height='30px'>
              <a href='#edit_photo' data-toggle='modal' class='pull-right photo' data-
id='".$row['canid']."'><span class='fa fa-edit'></span></a>
             </td>
             <td>".$row['firstname']."</td>
             <td>".$row['lastname']."</td>
```

```
                    <td><a href='#platform' data-toggle='modal' class='btn btn-info btn-sm btn-flat
platform' data-id='".$row['canid']."'><i class='fa fa-search'></i> View</a></td>
                    <td>
                     <button class='btn btn-success btn-sm edit btn-flat' data-id='".$row['canid']."'><i
class='fa fa-edit'></i> Edit</button>
                     <button class='btn btn-danger btn-sm delete btn-flat' data-id='".$row['canid']."'><i
class='fa fa-trash'></i> Delete</button>
                    </td>
                   </tr>
                  ";
                 }
                ?>
               </tbody>
              </table>
             </div>
            </div>
           </div>
          </div>
         </section>
        </div>

        <?php include 'includes/footer.php'; ?>
        <?php include 'includes/candidates_modal.php'; ?>
</div>
<?php include 'includes/scripts.php'; ?>
<script>
$(function(){
 $(document).on('click', '.edit', function(e){
  e.preventDefault();
  $('#edit').modal('show');
  var id = $(this).data('id');
  getRow(id);
 });

 $(document).on('click', '.delete', function(e){
  e.preventDefault();
  $('#delete').modal('show');
  var id = $(this).data('id');
  getRow(id);
 });

 $(document).on('click', '.photo', function(e){
  e.preventDefault();
  var id = $(this).data('id');
  getRow(id);
 });

 $(document).on('click', '.platform', function(e){
```

```
    e.preventDefault();
    var id = $(this).data('id');
    getRow(id);
  });

});

function getRow(id){
  $.ajax({
    type: 'POST',
    url: 'candidates_row.php',
    data: {id:id},
    dataType: 'json',
    success: function(response){
      $('.id').val(response.canid);
      $('#edit_firstname').val(response.firstname);
      $('#edit_lastname').val(response.lastname);
      $('#posselect').val(response.position_id).html(response.description);
      $('#edit_platform').val(response.platform);
      $('.fullname').html(response.firstname+' '+response.lastname);
      $('#desc').html(response.platform);
    }
  });
}
</script>
</body>
</html>
```

## Connection.php :-

```
<?php
    $conn = new mysqli('localhost', 'root', '', 'votesystem');

    if ($conn->connect_error) {
        die("Connection failed: " . $conn->connect_error);
    }

?>
```

# Database:-

```
SET SQL_MODE = "NO_AUTO_VALUE_ON_ZERO";
SET AUTOCOMMIT = 0;
START TRANSACTION;
SET time_zone = "+00:00";
CREATE TABLE `admin` (
  `id` int(11) NOT NULL,
  `username` varchar(50) NOT NULL,
  `password` varchar(60) NOT NULL,
  `firstname` varchar(50) NOT NULL,
  `lastname` varchar(50) NOT NULL,
  `photo` varchar(150) NOT NULL,
  `created_on` date NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
INSERT INTO `admin` (`id`, `username`, `password`, `firstname`, `lastname`, `photo`,
`created_on`) VALUES
(1, 'harie', 'Admin@123', 'Hariharan', 'Elancheliyan', 'facebook-profile-image.jpeg', '2018-04-02');

CREATE TABLE `candidates` (
  `id` int(11) NOT NULL,
  `position_id` int(11) NOT NULL,
  `firstname` varchar(30) NOT NULL,
  `lastname` varchar(30) NOT NULL,
  `photo` varchar(150) NOT NULL,
  `platform` text NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;

CREATE TABLE `positions` (
  `id` int(11) NOT NULL,
  `description` varchar(50) NOT NULL,
  `max_vote` int(11) NOT NULL,
  `priority` int(11) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
CREATE TABLE `voters` (
  `id` int(11) NOT NULL,
  `voters_id` varchar(15) NOT NULL,
  `password` varchar(60) NOT NULL,
  `firstname` varchar(30) NOT NULL,
  `lastname` varchar(30) NOT NULL,
  `photo` varchar(150) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
CREATE TABLE `votes` (
  `id` int(11) NOT NULL,
  `voters_id` int(11) NOT NULL,
```

```
  `candidate_id` int(11) NOT NULL,
  `position_id` int(11) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
ALTER TABLE `admin`
  ADD PRIMARY KEY (`id`);
ALTER TABLE `candidates`
  ADD PRIMARY KEY (`id`);

ALTER TABLE `positions`
  ADD PRIMARY KEY (`id`);
ALTER TABLE `voters`
  ADD PRIMARY KEY (`id`);
ALTER TABLE `votes`
  ADD PRIMARY KEY (`id`);
ALTER TABLE `admin`
  MODIFY `id` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=2;
ALTER TABLE `candidates`
  MODIFY `id` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=18;
ALTER TABLE `positions`
  MODIFY `id` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=8;
ALTER TABLE `voters`
  MODIFY `id` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=2;
ALTER TABLE `votes`
  MODIFY `id` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=81;
COMMIT;
```

## Submit_Ballot.php :-

```
<?php
   include 'includes/session.php';
   include 'includes/slugify.php';

   if(isset($_POST['vote'])){
      if(count($_POST) == 1){
         $_SESSION['error'][] = 'Please vote atleast one candidate';
      }
      else{
         $_SESSION['post'] = $_POST;
         $sql = "SELECT * FROM positions";
         $query = $conn->query($sql);
         $error = false;
         $sql_array = array();
         while($row = $query->fetch_assoc()){
            $position = slugify($row['description']);
            $pos_id = $row['id'];
            if(isset($_POST[$position])){
               if($row['max_vote'] > 1){
                  if(count($_POST[$position]) > $row['max_vote']){
```

```
                    $error = true;
                    $_SESSION['error'][] = 'You can only choose '.$row['max_vote'].' candidates for
'.$row['description'];
                }
                else{
                    foreach($_POST[$position] as $key => $values){
                        $sql_array[] = "INSERT INTO votes (voters_id, candidate_id, position_id)
VALUES ('".$voter['id']."', '$values', '$pos_id')";
                    }

                }

            }
            else{
                $candidate = $_POST[$position];
                $sql_array[] = "INSERT INTO votes (voters_id, candidate_id, position_id) VALUES
('".$voter['id']."', '$candidate', '$pos_id')";
            }

        }

        }

        if(!$error){
            foreach($sql_array as $sql_row){
                $conn->query($sql_row);
            }

            unset($_SESSION['post']);
            $_SESSION['success'] = 'Ballot Submitted';

        }

    }

  }
  else{
    $_SESSION['error'][] = 'Select candidates to vote first';
  }

  header('location: home.php');

?>
```

## Votes.php:-

```
<?php include 'includes/session.php'; ?>
<?php include 'includes/header.php'; ?>
<body class="hold-transition skin-blue sidebar-mini">
<div class="wrapper">

 <?php include 'includes/navbar.php'; ?>
 <?php include 'includes/menubar.php'; ?>

 <!-- Content Wrapper. Contains page content -->
 <div class="content-wrapper">
  <!-- Content Header (Page header) -->
  <section class="content-header">
   <h1>
    Votes
   </h1>
   <ol class="breadcrumb">
    <li><a href="#"><i class="fa fa-dashboard"></i> Home</a></li>
    <li class="active">Votes</li>
   </ol>
  </section>
  <!-- Main content -->
  <section class="content">
   <?php
    if(isset($_SESSION['error'])){
     echo "
      <div class='alert alert-danger alert-dismissible'>
       <button type='button' class='close' data-dismiss='alert' aria-hidden='true'>&times;</button>
       <h4><i class='icon fa fa-warning'></i> Error!</h4>
       ".$_SESSION['error']."
      </div>
     ";
     unset($_SESSION['error']);
    }
    if(isset($_SESSION['success'])){
     echo "
      <div class='alert alert-success alert-dismissible'>
       <button type='button' class='close' data-dismiss='alert' aria-hidden='true'>&times;</button>
       <h4><i class='icon fa fa-check'></i> Success!</h4>
       ".$_SESSION['success']."
      </div>
     ";
     unset($_SESSION['success']);
    }
   ?>
   <div class="row">
```

```
      <div class="col-xs-12">
        <div class="box">
          <div class="box-header with-border">
            <a href="#reset" data-toggle="modal" class="btn btn-danger btn-sm btn-flat"><i class="fa fa-refresh"></i> Reset</a>
          </div>
          <div class="box-body">
            <table id="example1" class="table table-bordered">
              <thead>
                <th class="hidden"></th>
                <th>Position</th>
                <th>Candidate</th>
                <th>Voter</th>
              </thead>
              <tbody>
                <?php
                  $sql = "SELECT *, candidates.firstname AS canfirst, candidates.lastname AS canlast, voters.firstname AS votfirst, voters.lastname AS votlast FROM votes LEFT JOIN positions ON positions.id=votes.position_id LEFT JOIN candidates ON candidates.id=votes.candidate_id LEFT JOIN voters ON voters.id=votes.voters_id ORDER BY positions.priority ASC";
                  $query = $conn->query($sql);
                  while($row = $query->fetch_assoc()){
                    echo "
                      <tr>
                        <td class='hidden'></td>
                        <td>".$row['description']."</td>
                        <td>".$row['canfirst'].' '.$row['canlast']."</td>
                        <td>".$row['votfirst'].' '.$row['votlast']."</td>
                      </tr>
                    ";
                  }
                ?>
              </tbody>
            </table>
          </div>
        </div>
      </div>
    </div>
  </section>
 </div>

 <?php include 'includes/footer.php'; ?>
 <?php include 'includes/votes_modal.php'; ?>
</div>
<?php include 'includes/scripts.php'; ?>
</body>
</html>
```

# Chapter VIII: CONCLUSION & DISCUSSION

## 8.1 Conclusion :-

This Online Voting system will manage the Voter's information by which voter can login and use his voting rights. The system will incorporate all features of voting system. It provides the tools for maintaining voter's vote to every party and it count total no. of votes of every party. There is a database which is maintained by the Sarwamangal Youth Club in which all the names of voter with complete information is stored.

In this member who had registered his/her information on the database and when he/she want to vote he/she has to login by his email and password and can vote to any candidate only single time. Voting detail store in database and the result is displayed by calculation. By online voting system percentage of voting is increases. It decreases the cost and time of voting process. It is very easy to use and it is very less time consuming. It is very easy to debug.

## 8.2 Future Enhancement::-

With the existing constraints, the developed systems is not what was planned initially. The primary aim of this project has been met. All the objectives that were set out have been completed and giving positive results in the ends. In the future some features that can be added will be about the two factor authentication. Although the user requirements were successfully met the application is not yet fully utilized because the users of this website are just learning about the benefits and working of the website.

The user testing and evaluation of the application did however highlight rooms for the expansion. The application could therefore be developed further as soon as the user is fully aware of its working.

The Electronic Voting Machine works precisely but the report analysis modifications are still to be improved. This software is tested properly and all necessary conditions that need to be taken care during vote process are considered. Aadhar card recognition facility for EVM will serve as future scope of this project. Electronic voting systems may offer advantages compared to other voting techniques. An electronic voting system can be involved in any one of a number of steps in the setup, distributing, voting, collecting, and counting of ballots, and thus may or may not introduce advantages into any of these steps.

## REFERENCE:-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