MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)

Project Report

on

Online Voting System

Submitted By:

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DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

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CERTIFICATE

This is certified that **Sudhanshu Dubey** (0901CS181109) has submitted the project report titled **Online Voting System** under the mentorship of **Mr. Mir Shahnawaz Ahmad** in partial fulfilment of the requirement for the award of degree of Bachelor of Technology in Computer Science and Engineering from Madhav Institute of Technology and Science, Gwalior.

09/05/22

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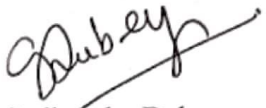
DECLARATION

I hereby declare that the work being presented in this project report, for the partial fulfilment of requirement for the award of the degree of Bachelor of Technology in Computer Science and Engineering at Madhav Institute of Technology & Science, Gwalior is an authenticated and original record of my work under the mentorship of Mr. Mir Shahnawaz Ahmad, Assistant Professor, Computer Science and Engineering.

I declare that I have not submitted the matter embodied in this report for the award of any degree or diploma anywhere else.



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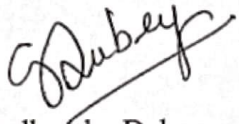

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ABSTRACT

This Project is about implementing physical voting to an online mode. By this, we all can vote at comfort of our home. And, soon this method is going to implement in various countries. This is also termed as e-voting.

As we have seen that many countries have a problem with their current voting system, and peoples of them were not satisfy with their voting structure including India. If this type of method can resolve their problem then they should build their own e-voting system where there is not any casuality.

In this project, we use HTML, CSS in building UI. In Backend, we use PHP to connect with Database.

And, Of course we implement database by MYSQL.

Keyword: Voting, HTML, CSS, MYSQL, Database

सार:

यह परियोजना भौतिक मतदान को ऑनलाइन मोड में लागू करने के बारे में है। इससे हम सभी अपने घर में आराम से मतदान कर सकते हैं। और, जल्द ही यह तरीका विभिन्न देशों में लागू होने जा रहा है। इसे ई-वोटिंग भी कहा जाता है।

जैसा कि हमने देखा है कि कई देशों को अपनी वर्तमान मतदान प्रणाली से समस्या है, और उनमें से लोग भारत सहित अपने मतदान ढांचे से संतुष्ट नहीं थे। यदि इस प्रकार की पद्धति से उनकी समस्या का समाधान हो सकता है तो उन्हें अपना स्वयं का ई-वोटिंग सिस्टम बनाना चाहिए जहां कोई हताहत न हो।

इस प्रोजेक्ट में, हम UI के निर्माण में HTML, CSS का उपयोग करते हैं। बैकएंड में, हम डेटाबेस से जुड़ने के लिए PHP का उपयोग करते हैं। और, निश्चित रूप से हम MYSQL द्वारा डेटाबेस को लागू करते हैं।

कीवर्ड: वोटिंग, HTML, CSS, MYSQL, डेटाबेस

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LIST OF ABBREVIATIONS

Abbreviation	Description
HTML	Hypertext Markup Language
PHP	Hypertext Preprocessor
MYSQL	My Structured Query Language
CSS	Cascading style sheets
UI	User Interface

CHAPTER 1 PROJECT OVERVIEW

1.1 Introduction

Voting is a method for a group, such as a meeting or an electorate, in order to make a collective decision or express an opinion usually following discussions, debates or election campaigns.

Voting can take place in a variety of ways in smaller organisations. Formally, by ballot, to elect others, such as members of a committee at work.

In this report, we are trying for implement e-voting for a small group of members so that they can elect without any partiality. You can vote simply by following some steps:

1] You first have to register yourself. For registering you have to provide your name, mobile number, password, address, your group (Voter, Party) and one image of yours.

2] After successful registration, you will say to do for a LogIn by entering the details you have previously filled.

3] Then, You are directed to your dashboard page where you can see the party/group for which you can vote and your status of voting either voted or not.

4] Now you can vote by simply clicking on the party/group.

5] Congratulations, You have voted and your status has been changed.

1.2 Objectives and Scope

1] To Examine the current Voting system in India

2] Developing an automated voting system

3] Should win the people’s pride

4] Developing the most updated system for voting

6] Validate the system for genuine voting

1.3 Project Features

It will cut down on the amount of time spent in long lines at polling places during voting. It will also allow voters to vote from anywhere on the planet, as indicated, because this is an internet-based application. Vote miscounts will also be resolved, as the system's backend contains a well-developed database utilising MYSQL that can offer accurate data once properly queried.

And, it is available on internet so many people can think who to vote and why?

It also reduces our cost of voting as we have to only maintain the functionality and security of web server.

It’s been developed by keeping in mind that number of genuine voters should be increased as voting is very convenient now.

1.4 Feasibility

1.4.1 Operational Feasibility

Operational feasibility is the measure of how well a proposed system solves the problems, and takes advantage of the opportunities identified during scope definition and how it satisfies the requirements identified in the requirements analysis phase of system development.

The operational feasibility assessment focuses on the degree to which the proposed development project fits in with the existing business environment and objectives with regard to development schedule, delivery date, corporate culture and existing business processes.

The project is feasible in terms of operations as it can be implemented anywhere with internet connectivity and the system, and will be helpful for any community or group.

1.4.2 Economic Feasibility

The purpose of an economic feasibility study (EFS) is to demonstrate the net benefit of a proposed project for accepting or disbursing electronic funds/benefits, taking into consideration the benefits and costs to the agency, other state agencies, and the general public as a whole. d. This means under this feasibility study a detailed analysis is carried out of what will be the cost of the project for development which includes all required costs for final development like hardware and software resources required, design and development cost and operational cost and so on.

The project has an economical constraint as the API with more number of request and good internet connectivity requires more budget.

1.4.3 Legal Feasibility

This assessment investigates whether any aspect of the proposed project conflicts with legal requirements like zoning laws, data protection acts or social media laws. Let's say an organization wants to construct a new office building in a specific location. A feasibility study might reveal the organization's ideal location isn't zoned for that type of business. That organization has just saved considerable time and effort by learning that their project was not feasible right from the beginning.

So, we have to check from starting that our project is legally feasible or not.

In this project, there are some issue with the acceptance by the government on a national level, it's all depend on the government and their peoples that they want a new method of voting or want to continue with their previous method.

But for a particular community or a group, this can be their best method for voting as they have to spend so much money every time for conducting the elections. This can reduce their time as well as their money. Just they need to maintain this software and their all problems will be vanished.

1.5 System Requirement

Windows Based Requirements:

Computers running Microsoft Windows must meet the following minimum hardware and software requirements,

Microsoft Windows: 7/8/10/11

4 GB RAM minimum, 8 GB RAM recommended

1GB of available disk space minimum

1280 * 800 minimum screen resolution

Software Requirement:

Web browser i.e. Google chrome, Mozilla Firefox

Application: XAMPP

Hardware Requirement:

Laptop/Computer

Internet Connectivity

CHAPTER 2 LITERATURE REVIEW

2.1 Existing System

1] Paper Based Voting;

This is the most primitive way for voting. In this method, we only have to manage ballots. For voting, Voter marked the paper ballot and indicate for which candidate he wants to vote. but, this process is time consuming and also duplication can be possible.

The Advantage of this method is, we can verify whom got the how much votes any time.

2] Lever Voting Machine;

Lever machine is peculiar equipment and each lever is assigned for a corresponding candidate. This machine automatically count up the number of ballots.

Training is necessary for this method as the interface is not that much user friendly.

3] Optical Voting Machine;

This is another method for voting. Here also the number of ballots count up automatically. In this method, Voter have to mark the circle correspond to their favourite candidate, machine selects the highlighted circle, and considered as voted.

2.2 REQUIREMENT SPECIFICATION:

Here we are trying to clear some doubts which can arise in minds of the user who willing to vote, and we represent it in form of requirements, they are:

1] In order to create an account, user must need a valid mobile number, proof of address (Aadhar card) and one passport size photo.

2] In the machine, you have to select an option from the given two option, either you are a voter or a group.

3] After successful creation of your account, you will direct to login page where you have to fill the details that asked.

4] The admin page is also made where the admin can organize the election and maintain the database.

5] If user does not create account for yourself, then he/she can't visit their status of voting and they are out from the current voting list.

2.3 Innovation and Usefulness:

This system is divided into three parts:

1) Register

2) Voting

3) Counting.

This whole method is based on Client-Server Model. Firstly, user register for voting with their unique details, then they have to login with their same details. After successful login, they can see who is standing in the race for winning the election, and can vote accordingly.

Their vote will be added and kept secured. After successful completion of voting, the declaration of winner will be announced.

This all requires complete security from outside and inside, for to manage all this we follow some rules that are:

A) The data will be stored properly in data stores which will help in retrieval of information as well as its storage.

b) All operation would be done correctly and it ensures that whatever information is coming from the centre is accurate.

c) The main objective of proposed system is to provide for a quick and efficient retrieval of information.

d) The system should be easy to operate and should be such that it can be developed within a short period of time and fit in the limited budget of the user.

CHAPTER 3 PRELIMINARY DESIGN

3.1 Data Flow Diagram:

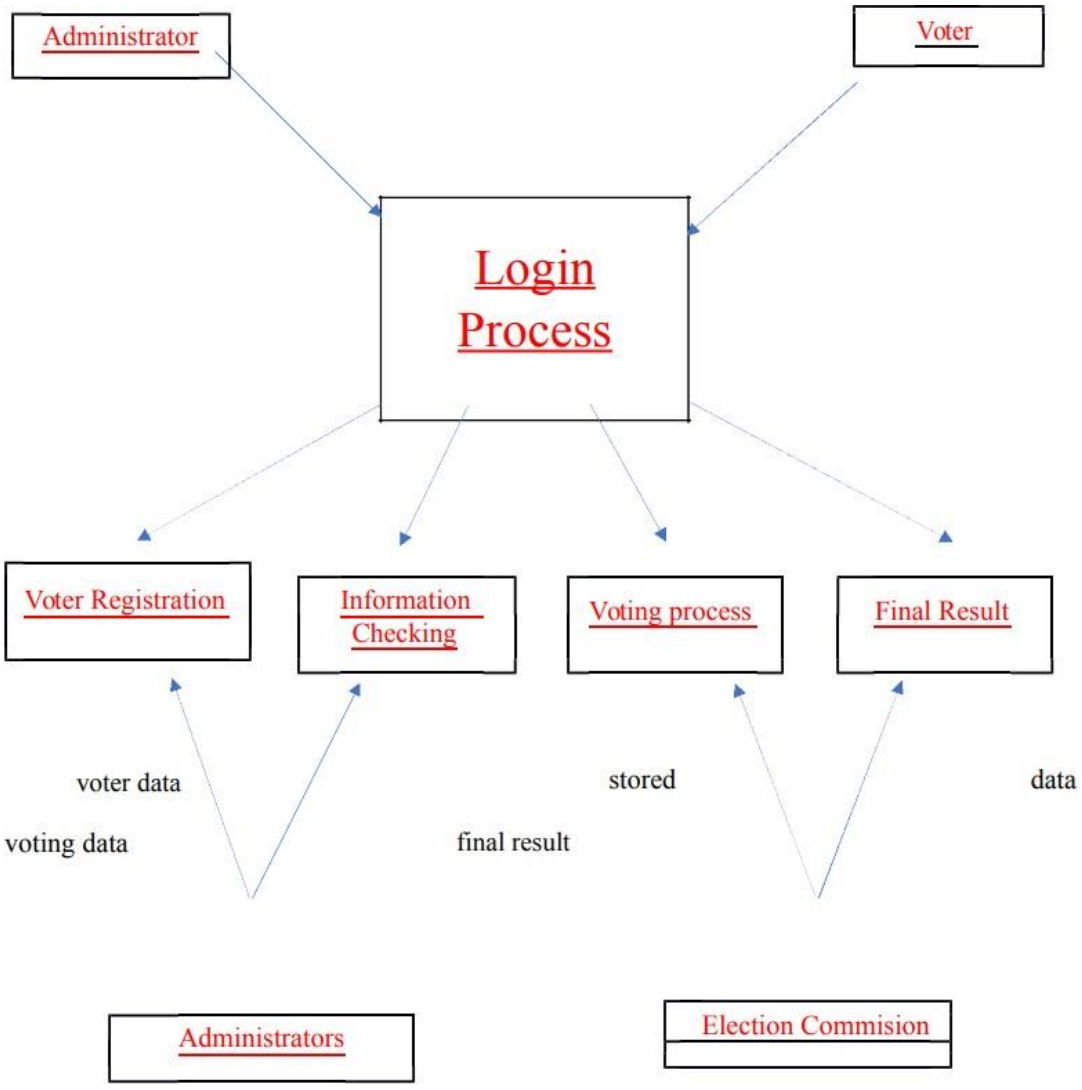

Figure 3.1 Dataflow diagram

3.2 Tools and Technologies

3.2.1 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.

3.2.2 CSS:

CSS is the language for describing the presentation of Web pages, including colurs, 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.

3.2.3 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.

3.2.4 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.

3.2.5 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.

3.2.6 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.

3.2.7 Visual Studio Code

Visual Studio Code is a source-code editor made by Microsoft for Windows, Linux and macOS. Features include support for debugging, syntax highlighting, intelligent code completion, snippets, code refactoring, and embedded Git. Users can change the theme, keyboard shortcuts, preferences, and install extensions that add additional functionality.

3.2.8 XAMPP

It is a free and open-source cross-platform web server solution stack package developed by Apache Friends,[2] consisting mainly of the Apache HTTP Server, MariaDB database, and interpreters for scripts written in the PHP and Perl programming languages.[3][4] Since most actual web server deployments use the same components as XAMPP, it makes transitioning from a local test server to a live server possible.

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CHAPTER 4 FINAL ANALYSIS AND DESIGN

4.1 RESULTS

After addressing all the inputs, we are now able to vote and can see our vote status. This is also applied on the other party who is in the race of elections. And, all the data is stored in the database as ID, Name, Mobile Number, Address, Status and role. I am showing the screenshot of my database here for better understanding,

DATABASE:

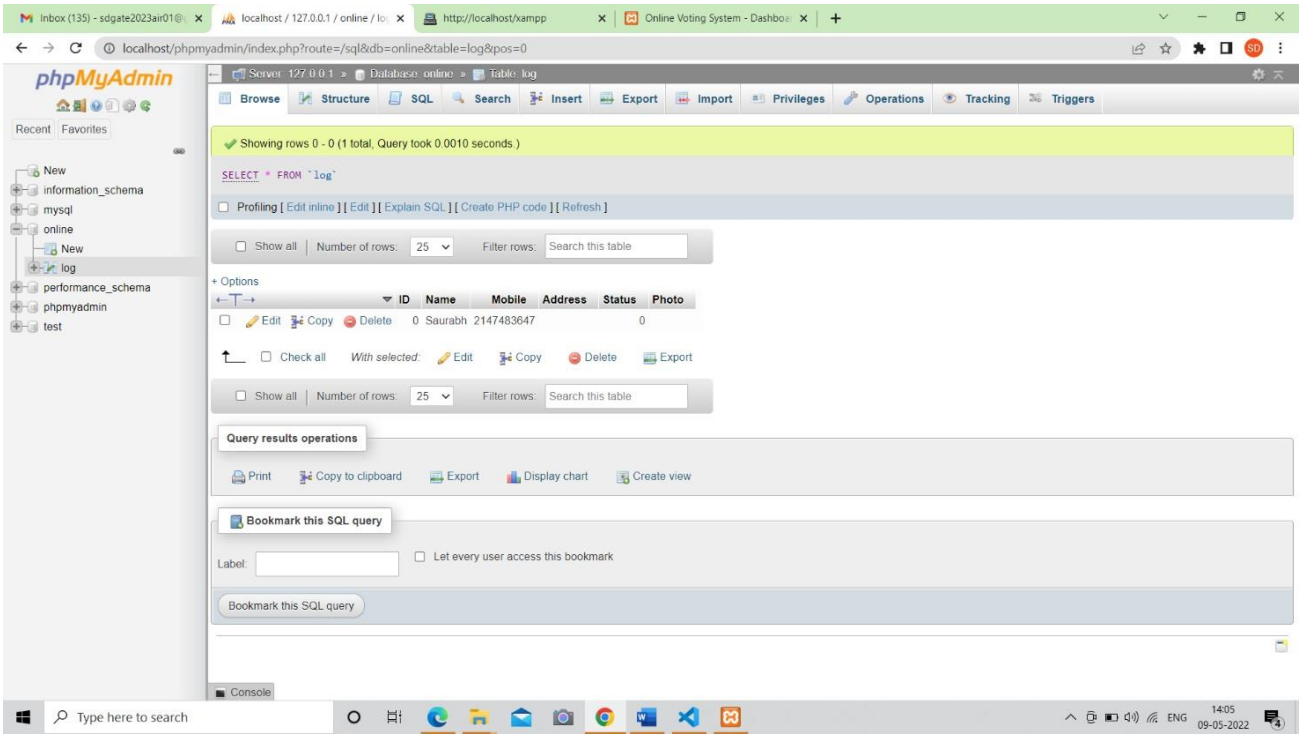


Figure 4.1 database tables

4.2 Result Analysis

The analysis by the above data can be the total number of votes Vs total number of registrations done Vs Total number of Voters.

As in the a particular area, there are some number of peoples who are eligible to vote, mainly the age required for voting is 18.

So, The Count of eligible voters are the total number of voters in that area.

After many campaign, people try to register themselves for voting, but many of them are still not interested in voting so they haven't create their account on the portal, here many of the voters reduces and the remaining will be treated as the number of eligible voters who have done their registration.

After successful registration, its time to vote but here also many of the registered candidates don't vote, issue can be anything.

This is our actual voters who have participated in voting and a responsible candidate of the nation.

By the above three matric, we can analyse easily that how many peoples actually voted in percentage?

How many peoples have done their registration successfully and can't able to vote?

And, How many peoples haven't registered and why?

Let say in an area, there are 15000 peoples who are eligible to vote, But the total number of registered candidates are only 9000.

Furthermore, the number of actual voters are only 6000.

So, we can analyse that only 60% registrations done and 40% peoples actually voted.

For all above question, the election commissioner have to run some awareness campaign and find the reason behind this gap. By the next elections, these percentage can be grown.

4.3 Applications

This can be used by the Politicians, Group Leaders, Small and medium Organization for their small and medium problems like they want to do a survey that how many peoples like our product, they only have to send the link to their all customers and they will get their data.

For Politicians, It is always useful as this is made primarily for them. Only they have to try it only once.

This also can be useful by schools for their university elections, by this they can reduce all their stress of conducting elections.

4.5 Problems Faced

While developing the project, we faced many problems like errors in the coding part of many files, matching of password and confirm password, data fetching from database and server installation.

And, in the status of voting.

4.6 Limitations

This is not that much capable for voting in an area whose population is greater than 1000. This might can generate error in fetching data.

Security breach can be possible, so we need strong software to protect data.

Otherwise, we can utilise this enough for our small elections.

4.7 Conclusion and Future Scope

This Online Voting System will manage the Voter's information by which voter can login can 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 count it total number. By this method, the percentage of voting can be increased. And finally, It is very easy to operate.

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. Potential disadvantages exist as well including the potential for flaws or weakness in any electronic component.

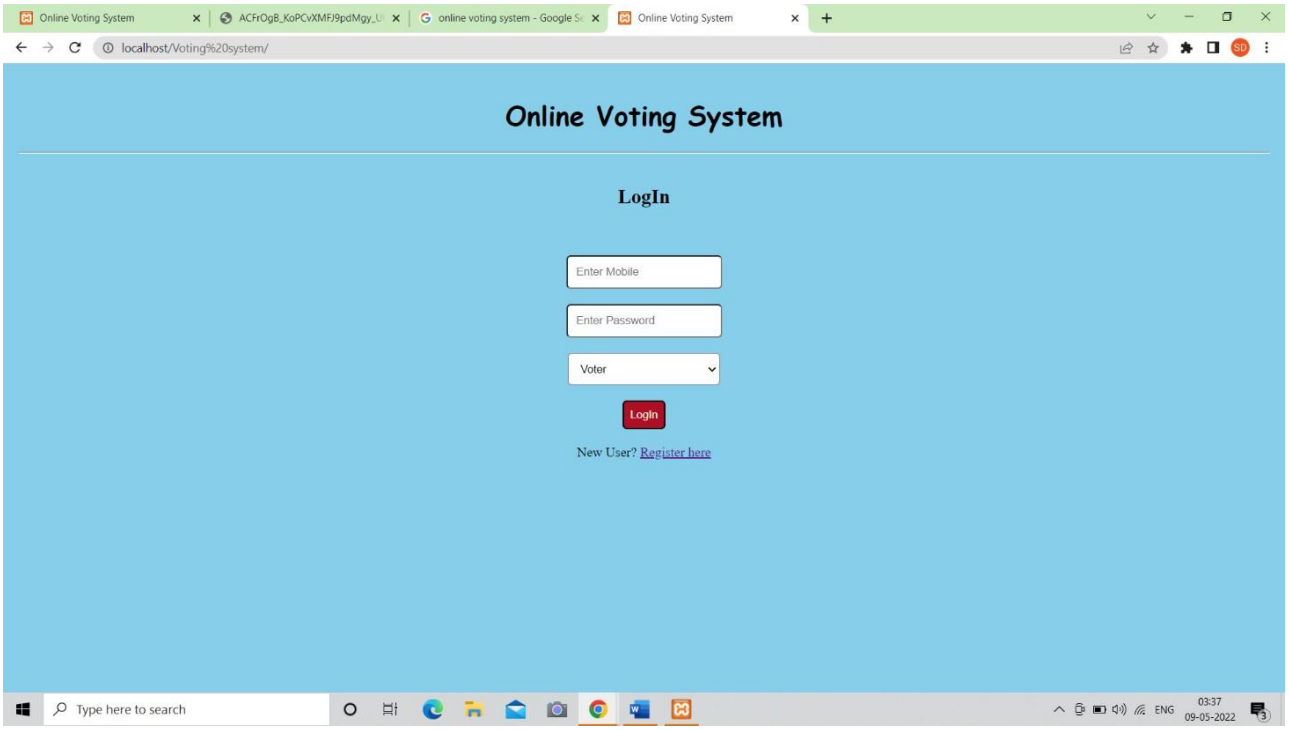
REFRENCES

Software Engineering- A practitioner's Approach by Roger S. Pressman: 6th edition McGraw Hill, 2005

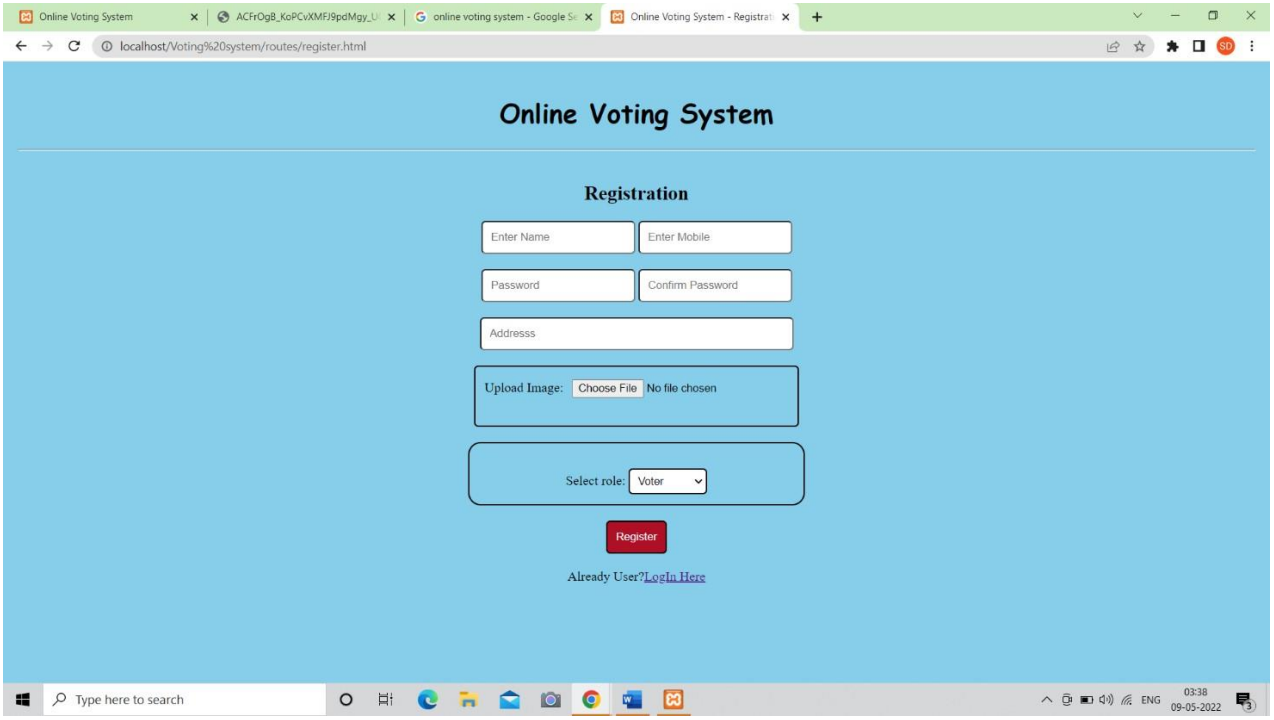
An Integrated Approach to Software Engineering by Pankaj Jalote:3rd edition Springer, 2005

APPENDICES

LOGIN PAGE:



REGISTRATION PAGE:



DASHBOARD PAGE: