

“ONLINE VOTING SYSTEM FOR CENTURION”

A Project report submitted in the partial fulfillment the award of degree of

BACHELOR OF TECHNOLOGY

IN

COMPUTER SCIENCE AND ENGINEERING (2022-2023)

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BONAFIDE CERTIFICATE

This is to certify that the project work entitled “**ONLINE VOTING SYSTEM FOR CENTURION**” of project work done by **T.SAI VENKATESH(Register Number: 211801380035)**, **S. MOHAN (Register Number: 211801380025)**, **T. HARSHA (Register Number: 211801380019)**, **V. GANGADHAR (Register Number: 211801370016)** for the award the Degree of **BACHELOR OF TECHNOLOGY in COMPUTER SCIENCE AND ENGINEERING, CENTURION UNIVERSITY OF TECHNOLOGY AND MANAGEMENT**, during the academic year **2022-2023**.

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DECLARATION

We hereby declare that the project entitled "**ONLINE VOTING SYSTEM FOR CENTURION**" submitted to the fulfilment of award the Degree of **B.TECH (CSE)** at **CENTURION UNIVERSITY OF TECHNOLOGY AND MANAGEMENT (A.P)**. This project work in original has not been submitted so far in any part or full for any other university or institute for the award of any Degree or Diploma.

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The project is a result to the cumulate efforts, support, guidance, encouragement and inspiration from many of those for whom we have to give our truthful honor and express gratitude through bringing out this project at the outset as per our knowledge.

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ABSTRACT

Our paper 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 new method does not force the person's physical appearance to vote, which makes the things easier. This paper focusses on a system where the user can vote remotely from anywhere using his/her computer or mobile phone and doesn't require the voter to got to the polling station through two step authentication of face recognition and OTP system. In this project we introduced new features for the voting process like by making it online, by providing security for the voters through OTP, by providing graphical user interface etc..

Keywords: voter, candidate, administrator, OTP

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CHAPTER - 1

INTRODUCTION

1. INTRODUCTION

An online voting system is a digital platform that enables individuals to cast their votes electronically through the internet. It aims to streamline the voting process, enhance accessibility, and potentially increase voter participation. Online voting systems can be implemented at various levels, such as national, regional, or organizational elections. The basic concept behind an online voting system involves providing voters with a secure and user-friendly interface to cast their votes remotely. The system typically includes the following components Voters must first register their information, including their eligibility to vote, to create a unique profile within the system. This process may require verification of identity to maintain the integrity of the voting process. To ensure security and prevent fraudulent activities, online voting systems employ robust authentication mechanisms. This can involve using passwords, biometrics, or two-factor authentication to verify the identity of voters. Once authenticated, voters can access their digital ballot and make their selections. The online voting system ensures the privacy and secrecy of each voter's choices.



Online voting systems employ encryption techniques to secure the transmission and storage of votes. Advanced encryption algorithms are used to protect the

integrity and confidentiality of the voting data. To ensure transparency and accountability, online voting systems often include auditing and verification mechanisms. These mechanisms allow independent

Observers or auditors to verify the accuracy and integrity of the voting process. The system automatically tabulates the votes and generates accurate results. This eliminates the need for manual counting, reducing the potential for human error and expediting the announcement of election outcomes. Benefits of online voting systems include increased convenience for voters, potentially higher voter turnout, reduced costs associated with traditional voting methods, and faster and more efficient election results. Additionally, online voting systems can enhance accessibility for individuals with disabilities or those living in remote locations. However, implementing online voting systems also comes with challenges. Security concerns, such as the risk of hacking or tampering, need to be carefully addressed. Ensuring voter privacy, preventing voter coercion, and maintaining the integrity of the electoral process are crucial considerations in the design and implementation of such systems. It's important to note that the adoption of online voting systems varies across countries and jurisdictions. Some countries have successfully implemented online voting in certain elections, while others continue to rely on traditional paper-based methods. The decision to implement online voting ultimately depends on factors such as the technological infrastructure, legal framework, and the level of trust in the system's security and reliability.

An online voting system is a digital platform designed to facilitate and streamline the voting process through the internet. It allows eligible voters to cast their votes remotely using electronic devices such as computers, smartphones, or tablets, without the need to physically visit a polling station. Online voting systems aim to improve accessibility, convenience, and efficiency in the voting process. They offer several advantages over traditional in-person voting methods, including:

1. **Accessibility:** Online voting systems enable voters to participate in elections regardless of their geographical location or physical abilities. This is particularly beneficial for voters who are unable to travel to polling stations, such as those living abroad, military personnel, or individuals with disabilities.
2. **Convenience:** By eliminating the need to visit a physical polling station, online voting systems provide greater convenience for voters. They allow voters to cast their ballots at their own convenience and from any location with an internet connection. This flexibility can encourage higher voter turnout.
3. **Efficiency:** Online voting systems can streamline the voting process, reducing the time and resources required for traditional paper-based elections. They eliminate the need for printing and distributing physical ballots, and can automate various aspects of the voting process, including voter registration, ballot counting, and result tabulation.
4. **Security and Integrity:** Implementing robust security measures is crucial for ensuring the integrity and confidentiality of online voting systems. Encryption techniques, secure authentication methods, and audit trails can help protect against hacking, tampering, and unauthorized access. Additionally, blockchain technology has been explored as a means to enhance transparency and verifiability in online voting systems.

However, it's important to note that online voting systems also present challenges and concerns that need to be addressed. Some of these include ensuring the privacy of voters, preventing voter fraud, maintaining system integrity, and addressing the potential for technical issues or cyberattacks. Extensive research, testing, and implementation of robust security measures are necessary to mitigate these risks.

CHAPTER – 2

LITERATURE SURVEY

2. LITERATURE SURVEY

From the time it takes to the current technological development, there are online voting systems. That was clarified in this document. Develop voting plans to make more effective voting services available with ICT coffers than traditional paper- grounded voting styles. Choosers regard themselves as consumers and it's anticipated that the government will make the voting business more accessible. In the once decade, colorful forms of electronic voting, especially as fresh styles of voting for remote voting, political parties, campaigners, the electoral administration, and most importantly to ameliorate the effectiveness and pledge of the popular process to the electorate have attracted considerable attention. It allows voters to access the public algorithm and parameters to confirm their turnout.

Three types of advancing systems live:

1. System of paper voting

The paper voting system is the most common system for voting. Before the electronic voting system is enforced, it'll be used. The system of paper ballot includes paper and sealed ballot. Each voter uses and doesn't partake one ballot. This system's disadvantages are i) the time it takes; ii) the speed is low.

2. Electronic voting system

Electronic voting systems are electronic voting bias. A voting machine that uses an electronic voting machine to allow choosers to pass on their secret ballots. The vexation is I poor computer wisdom individualities can not bounce rightly, (ii) safety pitfalls sensitive, (iii) electricity consumption at polling stations; and (iv) costs.

3. Online voting system

A new platform for secure votes and voting is the online voting system. Online voting systems are a web- grounded voting system, which transmits votes via a web cybersurfer over the internet. Choosers from each over the world are eligible to bounce online.

Security issues arising from online voting are as follows In general operations, word protection is high and phishing attacks aren't the focus of the operation. Website druggies aren't defended efficiently from phishing. The crucial offer for icing a secure online polling protocol to meet

sequestration, obscurity, eligibility, equity, verification, and unique online voting safety conditions to achieve trustability, eligibility, translucency, delicacy, and oneness of three-vote system, two milliard Aires couples have created secure online voting for individualities grounded on cryptographic algorithms.

A secure, end- to- end empirical , Identity- grounded eyeless hand Internet voting system IEEE, journals, 2020 This document has been amended Early vote, elliptical wind cryptography, empirical end- to- end digital hand, Internet vote system. Batch venerability. Functional digital hand used by the BLS short hand system to cover voting against any changes anonymously to issue a blank ballot to choosers. Future of advancing Specifications and feasibility study of empirical Internet vote from end to end.

SeVEP Electronic polling system secure and empirical 2019 IEEE, journals, Authentication modified, effectiveness, electronic polling, malware, security, compliance. Authentication, electronic polling process has resource allocation polling system. Developing a working SeVEP prototype and assessing its scalability and usability for real- world use.

Towards Developing a Secure and Robust result forE-Voting using Block- chain 2019 IEEE, Spring, this paper modified compulsion resistance problem, Blockchain, Online Voting process, developing a Secure result for online Election process information and to break compulsion resistance problem to break using cryptographic algorithms.

End to End Verifiable Electronic Voting System for Shareholders IEEE 2019, review, this composition amended electronic vote, voting by shareholders, verification end- to- end, zero substantiation of knowledge, Decision Diffuse the supposition by Hellman, safety substantiation and empirical electoral process. More generally, choosers can leave stoutly within computation ages if using a smartphone.

Secure Online Voting System Using VC 2018 IEEE, Spring, this paper modified and using Visual cryptography, security share, advancing system. Secure a voting process for using Cryptography task script and enhancement in an being algorithm.

The Security Issues of The Online Voting System While heritage of similar particulars in the source law isn't respectable, the root of the security problems which have passed haven't only been attributed to outlanders(for illustration choosers and bushwhackers) but also to

interposers(for illustration program inventors and directors). These miscalculations caused a vote system crash.

The results suggested for stopping these attacks have thus been outlined. To help hackers from getting into the voting system over a network we can, for illustration, develop our system to transmit data without a network. Another illustration is to limit voting to unique input data to help command injection.

CHAPTER – 3

ANALYSIS

3. ANALYSIS

3.1 EXISTING SYSTEM

The existing system is manual and the paper-based voting which is voted on paper and counted manually. The electronic tabulation brings new kind of voting system in which the electronic cards with all candidate's symbol is marked manually and this can be counted electronically. The electronic voting systems are now different types known as the punch card, mark sense and the digital pen voting systems.

The Electronic Ballot Marker makes the voter easier to vote by providing the selections on the display to vote present on the electronic machine. The electronic ballots are connected with the central ballot systems which directly accept and get the updated record of all ballots. The central ballot system applies the Precinct count method which calculates the all votes from the ballots present at polling centres. The results are immediate.

3.1.1 Disadvantages of Existing System

- **Security Risks:** Online voting systems are vulnerable to hacking, malware, and other cybersecurity threats. Malicious actors could manipulate or intercept votes, compromising the accuracy and legitimacy of the election results.
- **Lack of Transparency:** Many online voting systems lack transparency, making it difficult to verify the accuracy of the results. Without proper auditing mechanisms and transparency in the voting process, it becomes challenging to ensure the integrity of the system.
- **Authentication and Identity Verification:** Establishing a robust authentication and identity verification process is crucial in online voting. Ensuring that only eligible voters participate and preventing fraudulent activities, such as impersonation or multiple voting, can be challenging.
- **Accessibility Issues:** While online voting aims to increase accessibility, it can also create barriers for certain individuals. Technological requirements, such as internet access and digital literacy, may exclude certain demographics or individuals with limited resources.

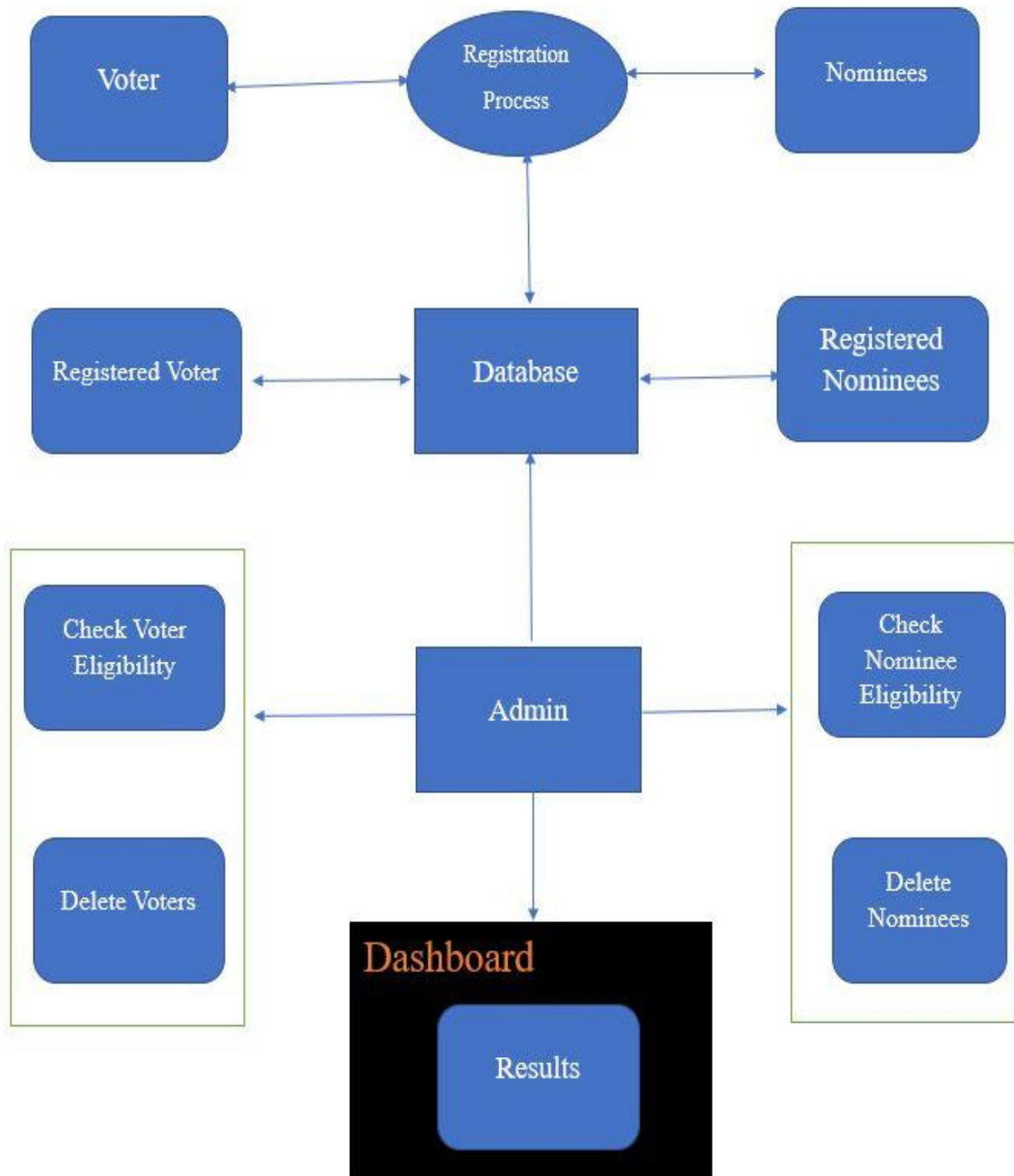
3.2 PROPOSAL SYSTEM

In our project, we are proposing a web application for voting process over the internet. Through this system users or voters can login and make their vote in the website over the internet. We are proposing voter registration, nominee registration as well as their ids for the registration. Voter registration is more secure as it is done through OTP (One Time Password). The proposed system is more reliable, faster, accurate, and easy to handle compared to existing manual system.

3.2.1 Advantages of Proposed System

- **Accessibility and Convenience:** Online voting systems provide convenience and accessibility to voters. Eligible voters can participate in the electoral process from anywhere with an internet connection, eliminating the need for physical presence at polling stations.
- **Increased Voter Participation:** Online voting has the potential to increase voter participation rates. By removing barriers such as geographical constraints, long queues, or time limitations, online voting systems can encourage more individuals to exercise their democratic rights and have their voices heard.
- **Efficiency and Time-Saving:** Online voting reduces the administrative burden associated with traditional paper-based voting methods. The process of ballot preparation, distribution, collection, and counting can be streamlined, resulting in significant time savings and quicker dissemination of election results.
- **Accuracy and Reduced Errors:** Online voting systems can minimize human errors that may occur during manual counting or data entry processes. Automated vote tabulation eliminates the risk of errors due to misinterpretation or data transcription mistakes, leading to more accurate and reliable election results.

3.3 System Architecture



3.4 System Configuration

3.4.1 Software Requirements

Front End Programming Languages: HTML (HYPERTEXT MARKUP LANGUAGE), CSS (CASCADING STYLE SHEETS), JS (JAVA SCRIPT), BOOTSTRAP.

Back End Programming Languages: PHP (HYPERTEXT PREPROCESSOR).

VS CODE: For writing above programs in editor.

Any Web Browser: For running the web application

Xampp: Which is used for storing data in databases and also it is used for running php programming languages.

HTML

The preferred mark-up language for documents intended to be viewed in a web browser is HTML, or **Hyper Text Mark-up** Language. It frequently benefits from tools like **Cascading Style Sheets (CSS)** and programming languages like **JavaScript**.

HTML documents are downloaded from a web server or local storage by web browsers, who then turn them into multimedia web pages. HTML originally featured cues for a web page's appearance and semantically explains the structure of a web page.

HTML elements are the building blocks of HTML pages. With HTML constructs, images and other objects such as interactive forms may be embedded into the rendered page. HTML provides a means to create structured documents by denoting structural semantics for text such as headings, paragraphs, lists, links, quotes, and other items. HTML elements are delineated by tags, written using angle brackets.

Tags such as `` and `<input />` directly introduce content into the page. Other tags such as `<p>` and `</p>` surround and provide information about document text and may include subelement tags. Browsers do not display the HTML tags but use them to interpret the content of the page.

HTML can embed programs written in a scripting language such as JavaScript, which affects the behaviour and content of web pages. The inclusion of CSS defines the look and layout of

content. The **World Wide Web Consortium** (W3C), former maintainer of the HTML and current maintainer of the CSS standards, has encouraged the use of CSS over explicit presentational HTML since 1997. A form of HTML, known as HTML5, is used to display video and audio, primarily using the <canvas> element, together with JavaScript.



CSS (Cascading Style Sheet)

A style sheet language called Cascading Style Sheets (CSS) is used to describe how a document produced in a mark-up language like HTML or XML (including XML dialects like SVG, MathML, or XHTML) is presented. The World Wide Web's foundational technologies, along with HTML and JavaScript, include CSS.

The purpose of CSS is to make it possible to separate content from presentation, including layout, colours, and fonts.

By specifying the pertinent CSS in a separate.css file, which reduces complexity and repetition in the structural content, this separation can improve content accessibility, provide more flexibility and control in the specification of presentation characteristics, enable multiple web pages to share formatting, and enable the.css file to be cached to improve page load speed between the pages that share the file and its formatting.

The ability to offer the same HTML page in several styles for various rendering techniques, including on-screen, in print, by voice (using a speech-based browser or screen reader), and on Braille-based tactile devices, is also made possible by the separation of formatting and content. If a user accesses the material on a mobile device, CSS additionally provides rules for different formatting. When many style rules match an element, the priority system is used

to determine which rule should be applied, hence the name cascading. This priority hierarchy is predictable.

The World Wide Web Consortium (W3C) maintains the CSS specifications. RFC 2318 (March 1998) registered the text/css Internet media type (MIME type) for usage with CSS. For CSS documents, the W3C offers a free CSS validation service. In addition to HTML, markup languages including XHTML, plain XML, SVG, and XUL all permit the use of CSS. In addition, the GTK widget toolkit uses CSS.

On October 10th, 1994, Hkon Wium Lie made the initial proposal for CSS. Lie was collaborating with Tim Berners-Lee at CERN at the time. Around the same time, a number of additional style sheet languages for the web were proposed, and discussions in public mailing groups and within the World Wide Web Consortium led to the 1996 publication of the first W3C CSS Recommendation (CSS1). In particular, a suggestion made by Bert Bos, who is credited as co-creating CSS and who later co-authored CSS1, was influential.



Java-Script

Along with HTML and CSS, the programming language JavaScript, sometimes known as JS, is one of the foundational elements of the World Wide Web. 98% of websites will utilise JavaScript on the client side by the year 2022 to control webpage behaviour, frequently integrating third-party libraries. A dedicated JavaScript engine is available in every major web browser and is used to run the code on users' devices.

JavaScript is an ECMAScript-compliant high-level, frequently just-in-time compiled language.[10] It features first-class functions, prototype-based object orientation, and dynamic typing. It supports event-driven, functional, and imperative programming paradigms and is multi-paradigm. For working with text, dates, regular expressions, common data structures, and the Document Object Model (DOM), it includes application programming interfaces (APIs).

There are no input/output (I/O) features like networking, storage, or graphics capabilities in the ECMAScript standard. In reality, JavaScript I/O APIs are offered by the web browser or another runtime system.

Originally only used in web browsers, JavaScript engines are now essential parts of some servers and a wide range of applications. Node.js is the most widely used runtime system for this application. Even while Java and JavaScript share the same name, syntax, and standard libraries, the two programming languages are separate and have very different designs.

In 1993, Mosaic, the first widely used web browser with a graphical user interface, was made available. It was easy for non-techies to use and contributed significantly to the World Wide Web's explosive expansion. The main developers of Mosaic later created the Netscape company, which in 1994 produced the more advanced browser Netscape Navigator. The majority of people started using this.

Web pages could only be static in these early days of the Internet because they couldn't perform dynamically once they were loaded in a browser. In 1995, Netscape made the decision to incorporate a scripting language into Navigator in response to the growing demand for removing this restriction from the online developer community. In order to do this, they took two different approaches: they worked with Sun Microsystems to embed the Java programming language and they hired Brendan Eich to embed the Scheme language.



PHP

A general-purpose programming language designed specifically for web development is PHP. Rasmus Lerdorf, a Danish-Canadian programmer, first developed it in 1993, and it was made public in 1995. The PHP Group now creates the PHP reference implementation. Personal Home Page was initially abbreviated as PHP, but it is now used to refer to the recursive initialise. Hypertext Pre-processor: PHP.

A PHP interpreter, which can be implemented as a module, daemon, or Common Gateway Interface (CGI) executable, typically processes PHP code on a web server. The output of PHP code that has been interpreted and performed on a web server could be any kind of data, including produced HTML or binary image data, and would make up all or a portion of an HTTP response. There are numerous web frameworks, online content management systems, and web template systems that can be used to organise or make the development of that answer easier.

In addition, PHP may be used for a wide range of programming activities outside the context of the web, including the control of robotic drones and standalone graphical apps.

Additionally, the command line can be used to execute PHP code directly. The Zend Engine-based default PHP interpreter is free software distributed under the PHP Licence. Since PHP has been widely adapted, it can be used on the majority of web servers across many different platforms and operating systems.

Rasmus Lerdorf built many Common Gateway Interface (CGI) programmes in C in 1993 to manage his own homepage. This was the beginning of PHP development. In order to interface with databases and deal with web forms, he enhanced them. He dubbed this implementation "Personal Home Page/Forms Interpreter" or PHP/FI.



BOOTSTRAP

Bootstrap is a popular front-end framework for building responsive and mobile-first websites

Bootstrap is an open-source CSS framework developed by Twitter that provides a collection of pre-designed components, CSS styles, and JavaScript plugins.

It allows developers to quickly and easily create responsive and visually appealing web pages.

Bootstrap follows a grid-based layout system that helps in creating responsive designs by dividing the page into 12 equal-width columns.

The framework provides a wide range of pre-styled components such as buttons, forms, navigation bars, carousels, modals, and more.

Bootstrap's CSS classes can be used to customize the appearance and behavior of these components

The framework also includes a set of utility classes for margin, padding, text alignment, colors, and more. Bootstrap is designed to be mobile-first, meaning that it prioritizes the design and functionality for mobile devices and then scales up to larger screens.

It includes a responsive grid system that automatically adjusts the layout based on the screen size, ensuring a consistent user experience across devices.

Bootstrap comes with a set of JavaScript plugins that provide additional functionality, such as image sliders, tooltips, popovers, and modals.

These plugins can be easily integrated into your web pages by including the Bootstrap JavaScript files.

Bootstrap can be customized by modifying the variables in its source Sass files, allowing developers to tailor the framework to their specific needs.

The framework supports the use of icons through its integration with popular icon libraries like Font Awesome and Glyphicons.

Bootstrap is compatible with all modern browsers, ensuring consistent rendering and functionality across different platforms.

It provides a responsive navbar component that automatically collapses into a hamburger menu on smaller screens, improving mobile navigation.

Bootstrap includes a responsive carousel component that allows you to create image sliders with optional captions and navigation controls.

The framework offers a variety of form styles and validation options, making it easier to create user-friendly and interactive forms.

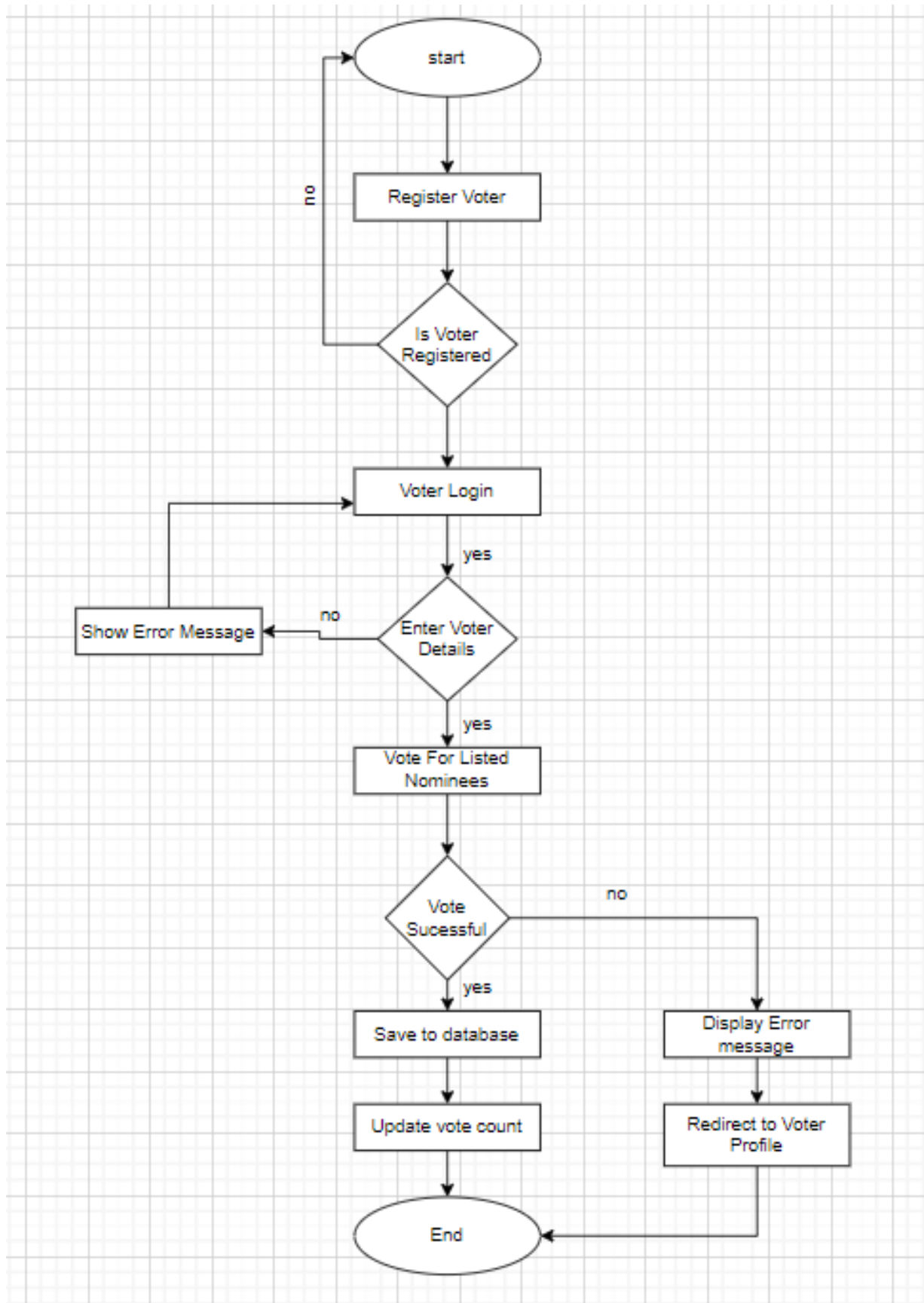
Bootstrap provides responsive utility classes for hiding, showing, or rearranging elements based on the screen size.



3.5 Hardware Requirements

- CPU: Intel ® Core ™ i5-7200U CPU @ 2.20 GHz or above.
- RAM: minimum 8 GB is required.
- Operating Systems:
 - I. Windows 8 or newer, 32 or 64 bits.
 - II. Ubuntu 14+, 64 bit.

3.6 FLOW OF THE SYSTEM



4. METHODOLOGY

4.1 Problem Statement

The problem addressed in this study is the need for an efficient and secure online voting system. Traditional voting methods often face challenges such as limited accessibility, low voter turnout, and time-consuming manual processes. Additionally, concerns regarding the integrity and security of the voting process persist.

The goal of this research is to design and develop an online voting system that addresses these challenges and ensures a reliable, accessible, and secure voting experience for all eligible voters. This system should provide a user-friendly interface, support efficient and convenient ballot casting, maintain the privacy and anonymity of voters, and guarantee the integrity and accuracy of the voting results. Furthermore, it should overcome potential security threats, such as unauthorized access, tampering, and coercion, while ensuring transparency and verifiability throughout the voting process.

The methodology employed in this study involves a comprehensive analysis of existing online voting systems, considering their strengths and weaknesses, as well as an examination of relevant technologies, standards, and legal frameworks. This will be followed by the design and implementation of a prototype online voting system, which will be evaluated through user testing, security audits, and simulation of real-world voting scenarios. The findings from this research will contribute to the advancement of online voting systems and inform the development of secure and reliable solutions for future elections.

CHAPTER – 5

IMPLEMENTATION

5. IMPLEMENTATION

User menu page

```
<!DOCTYPE html>
<html>
  <head>
    <title>Menu Page</title>
    <style>
      body{
        background-color: whitesmoke;
      }
      nav {
        background-color: #333;
        height: 50px;
        margin-bottom: 20px;
      }

      nav ul {
        list-style: none;
        margin: 0;
        padding: 0;
        display: flex;
      }

      nav li {
        margin: 0;
        padding: 0;
      }

      nav a {
        display: block;
        color: #fff;
        text-decoration: none;
        padding: 0 20px;
        line-height: 50px;
      }

      nav a:hover {
        background-color: #555;
      }

      h1 {
        font-size: 36px;
        margin: 0;
        padding: 20px;
        text-align: center;
```

```

        background-color: yellow;
        margin-top: 5px;
        margin-bottom: 35px;
    }

    p {
        font-size: 18px;
        margin: 0;
        padding: 20px;
    }
    marquee{
        background-color: whitesmoke;
        margin-bottom: 35px;
    }
    .center {
        display: block;
        margin-top: 45px;
    }

</style>
</head>
<body>
    <h1>ONLINE VOTING SYSTEM FOR CUTM</h1>
    <marquee behavior="ltr" direction="ltr">WELCOME TO ONLINE VOTING
SYSTEM</marquee>
    <nav>
        <ul>
            <li><a href="registration.php">VOTER-REGISTRATION</a></li>
            <li><a href="vid_checker.php">VOTER-ID-CHECKER</a></li>
            <li><a href="login.php">VOTER-LOGIN</a></li>
            <li><a href="nomineeregister.php">NOMINEE-REGISTRATION</a></li>
            <li><a href="nidchecker.php">NOMINEE-ID-CHECKER</a></li>
            <li><a href="nomineelogin.php">NOMINEE-LOGIN</a></li>
        </ul>
    </nav>
    
    </body>
</html>

```

Registration page

```

<!DOCTYPE html>
<html>
<head>
    <title>Registration Page</title>
    <meta name="viewport" content="width=device-width, initial-scale=1">

```

```

<link rel="stylesheet" href="./css/bootstrap.min.css">
<script src="./js/bootstrap.min.js"></script>
<link rel="stylesheet" href="style.css">
<style>
    .logout-button {
        position: absolute;
        top: 10px;
        right: 10px;
    }
    .logout-button {
        padding: 10px 20px;
        display: inline-block;
        color: white;
        background-color: #f44336;
        border: none;
        text-decoration: none;
        cursor: pointer;
        border-radius: 4px;
    }

    .logout-button:hover {
        background-color: #d32f2f;
    }

</style>
</head>
<body>
    <div class="container">
        <h1>Registration</h1>
        <form method="post" enctype="multipart/form-data">
            <div class="form-group">
                <label for="Upload">Upload Photo:</label>
                <input type="file" class="form-control" id="image"
name="photo" required><font style="color: red;">(.jpg,.jpeg,.png and
<500kb)</font>
            </div>
            <div class="form-group">
                <label for="Upload">Upload Aadhar:</label>
                <input type="file" class="form-control" id="image"
name="image" required><font style="color: red;">(.jpg,.jpeg,.png and
<500kb)</font>
            </div>
            <div class="form-group">
                <label for="name">Full Name:</label>
                <input type="text" class="form-control" id="name" name="name"
required><font style="color: red;">(as per Aadhar)</font>
            </div>
            <div class="form-group">

```

```

        <label for="dob">Date-Of-Birth</label>
        <input type="date" class="form-control" id="dob" name="dob"
required><font style="color: red;">(as per Aadhar)</font>
    </div>
    <div class="form-group">
        <label for="courses">Select Course</label>
        <select name="course" id="">
            <option value="course1">Course</option>
            <option value="Btech">Btech</option>
            <option value="b.s.c">B.Sc</option>
        </select>
    </div>
    <div class="form-group">
        <label for="branch">Select Branch</label>
        <select name="branch" id="">
            <option value="branch1">Branch</option>
            <option value="cse">CSE</option>
            <option value="ece">ECE</option>
            <option value="mech">MECH</option>
            <option value="ece">ECE</option>
        </select>
    </div>
    <div class="form-group">
        <label for="domain">Select Domain</label>
        <select name="domain" id="">
            <option value="domain">domain</option>
            <option value="cn">computer networks</option>
            <option value="csd">data science</option>
            <option value="aiml">machine learning</option>
            <option value="cic">iot and cyber security</option>
        </select>
    </div>
    <div class="form-group">
        <label for="mbn">Mobile Number</label>
        <input type="text" class="form-control" id="mbn" name="mbn"
required><font style="color: red;">(ex:+91xxxxxxxxxx)</font>
    </div>
    <button type="submit" class="btn btn-primary"
name="submit">Submit</button>
</form>
</div>
<a href="logout1.php" class="logout-button">Logout</a>
</body>
</html>

<?php
    session_start();
    include "dbconnection.php";

```



```

require __DIR__ . '/vendor/autoload.php';
use Twilio\Rest\Client;
if(isset($_POST['submit'])){
    $file=$_FILES['image'];
    $filename=$_FILES['image']['name'];
    $filesize=$_FILES['image']['size'];
    $filetmp=$_FILES['image']['tmp_name'];
    $filetype=$_FILES['image']['type'];
    $fileerror=$_FILES['image']['error'];

    $file1=$_FILES['photo'];
    $filename1=$_FILES['photo']['name'];
    $filesize1=$_FILES['photo']['size'];
    $filetmp1=$_FILES['photo']['tmp_name'];
    $filetype1=$_FILES['photo']['type'];
    $fileerror1=$_FILES['photo']['error'];

    $fileext=explode('.', $filename);
    $fileactualext=strtolower(end($fileext));
    $allowed=array('jpg', 'png', 'jpeg');

    $fileext1=explode('.', $filename1);
    $fileactualext1=strtolower(end($fileext1));
    $allowed1=array('jpg', 'png', 'jpeg');

    $fullname=$_POST['name'];
    $dob=$_POST['dob'];
    $course=$_POST['course'];
    $branch=$_POST['branch'];
    $domain=$_POST['domain'];
    $mobilenumber=$_POST['mbn'];
    $query="SELECT * from registration WHERE mobilenumber=$mobilenumber";
    $run=mysqli_query($connection,$query);
    if(mysqli_num_rows($run)>0){
        echo "<script>alert('Already mobile number is
registered');</script>";
    }

    else
if((in_array($fileactualext,$allowed))&&(in_array($fileactualext1,$allowed1)))
{
    if($fileerror===0){
        if(($filesize<500000)&&($filesize1<500000)){
            $filenamenew = uniqid('', true) . "." . $fileactualext;
            $filenamenew1 = uniqid('', true) . "." . $fileactualext1;
            $filedestination = 'images/' . $filenamenew;
            $filedestination1 = 'images/' . $filenamenew1;

```

```

move_uploaded_file($filetmp, $filedestination);
move_uploaded_file($filetmp1, $filedestination1);
if(isset($mobilenumber)){
    $sid = "AC8798f3d9eaab81d30a4b1512c54c3d13";
    $token = "55ed08ec3cda6470cdad7f31b5419bf4";
    $twilio_number="+16076012961";
    $num=rand(1000,9999);
    $_SESSION['loggedin'] = true;
    $_SESSION['photo'] = $filenamenew;
    $_SESSION['image']=$filenamenew1;
    $_SESSION['name'] = $fullname;
    $_SESSION['dob'] = $dob;
    $_SESSION['course']=$course;
    $_SESSION['branch'] = $branch;
    $_SESSION['domain'] = $domain;
    $_SESSION['mbn']=$mobilenumber;
    $_SESSION['otp']=$num;
    $msg="Your Login OTP is ".$num;
    $client = new Client($sid, $token);
    $message=$client->messages->create(
        // Where to send a text message (your cell phone?)
        $mobilenumber,
        array(
            'from' => $twilio_number,
            'body' => $msg
        )
    );
    if ($message->sid) {
        echo "<script>alert('OTP sent
successfully')</script>";
        echo "<script>
window.location.assign('verifyotp.php');</script>";
    }
}
else{
    echo "<script>alert('Please check your uploaded files are
is too big')</script>";
}
}
else{
    echo "<script>alert('There was an error uploading your
file')</script>";
}
}
else{
    echo "<script>alert('You cannot upload this type of
files')</script>";
}
}

```

```
}  
?>
```

Verification otp

```
<?php  
session_start();  
include 'dbconnection.php';  
if  
(isset($_POST['verify'])&&isset($_SESSION['photo'])&&isset($_SESSION['image'])  
&&isset($_SESSION['name'])  
&&isset($_SESSION['dob'])&&isset($_SESSION['course'])&&isset($_SESSION['branch'  
''])&&isset($_SESSION['domain'])&&isset($_SESSION['mbn'])&&  
isset($_SESSION['otp'])&&isset($_POST['otpv'])) {  
  
    $user_otp=$_POST['otpv'];  
  
    $otp=$_SESSION['otp'];  
  
    if ($otp==$user_otp) {  
  
        echo "<script>alert('otp verified sucessfully')</script>";  
        $filenamenew=$_SESSION['photo'];  
        $filenamenew1=$_SESSION['image'];  
  
        $fullname=$_SESSION['name'];  
        $dob=$_SESSION['dob'];  
        $course=$_SESSION['course'];  
        $branch=$_SESSION['branch'];  
        $domain=$_SESSION['domain'];  
        $mobilenumber=$_SESSION['mbn'];  
        $sql="INSERT INTO  
registration(photourl,imageurl,username,dateofbirth,course,branch,domain,mobil  
enumber)  
values('$filenamenew1','$filenamenew','$fullname','$dob','$course','$branch','  
$domain','$mobilenumber')";  
        mysqli_query($connection,$sql);  
        echo "<script>alert('Registration completed  
successfully')</script>";  
        echo "<script> window.location.assign('menu.php')</script>";  
    }  
  
    else{
```

```

        echo "<script>alert('otp wrong')</script>";
    }

}
?>
<!DOCTYPE html>
<html lang="en">
<head>
    <title>OTP LOGIN SYSTEM USING TWILION API</title>
    <link rel="stylesheet" href="./css/bootstrap.min.css">
    <script src="./js/bootstrap.min.js"></script>
    <link rel="stylesheet" href="./style.css">
</head>
<body>

    <div class="container">

        <form method="post">

            <div class="form-group">
                <label for="number">OTP Number:</label>
                <input type="text" class="form-control" id="" name="otpv"
required>
            </div>
            <button type="submit" class="btn btn-primary"
name="verify">Verify</button>
        </form>

    </div>
</body>
</html>

```

Login page

```

<!DOCTYPE html>
<html>
    <head>
        <title>Login Page</title>
        <meta name="viewport" content="width=device-width, initial-scale=1">
        <link rel="stylesheet" href="./css/bootstrap.min.css">
        <script src="./js/bootstrap.min.js"></script>
        <link rel="stylesheet" href="./style.css">
    </head>
    <body>
        <div class="container">

```

```

        <form method="post" action="<?php echo
htmlspecialchars($_SERVER['PHP_SELF']); ?>">

            <div class="form-group">
                <label for="number">User Name:</label>
                <input type="text" class="form-control" id=""
name="username" required>
            </div>
            <div class="form-group">
                <label for="number">Voter Id:</label>
                <input type="text" class="form-control" id="" name="vid"
required>
            </div>
            <div class="form-group">
                <label for="domain">Select Domain</label>
                <select name="domain" id="">
                    <option value="domain">domain</option>
                    <option value="cn">computer networks</option>
                    <option value="csd">data science</option>
                    <option value="aiml">machine learning</option>
                    <option value="cic">iot and cyber security</option>
                </select>
            </div>
            <div class="form-group">
                <label for="number">Mobile Number:</label>
                <input type="text" class="form-control" id="" name="mbn"
required><font style="color: red;">(ex:+91xxxxxxxxxx)</font>
            </div>
            <button type="submit" class="btn btn-primary"
name="submit">Login</button>
        </form>

    </div>
</body>
</html>
<?php
    session_start();
    require __DIR__ . '/vendor/autoload.php';
    use Twilio\Rest\Client;
    include "dbconnection.php";
    if (isset($_POST['submit'])) {
        $voterid=mysqli_real_escape_string($connection,$_POST['vid']);
        $username = mysqli_real_escape_string($connection,
$_POST['username']);
        $mobilenumber = mysqli_real_escape_string($connection, $_POST['mbn']);
        $domain = mysqli_real_escape_string($connection, $_POST['domain']);
    }

```

```

$query = "SELECT * FROM registration WHERE voterid='$voterid' AND
username='$username' AND domain='$domain' AND mobilenumber='$mobilenumber'";
$result = mysqli_query($connection, $query);

if (mysqli_num_rows($result) == 1) {

    $_SESSION['loggedin'] = true;
    $_SESSION['username'] = $username;
    $_SESSION['mbn']=$mobilenumber;
    $_SESSION['domain']=$domain;
    $_SESSION['vid']=$voterid;
    $sid = "AC8798f3d9eaab81d30a4b1512c54c3d13";
    $token = "55ed08ec3cda6470cdad7f31b5419bf4";
    $twilio_number="+16076012961";
    $num=rand(1000,9999);
    $_SESSION['otp']=$num;
    $msg="Your Login OTP is ".$num;
    $client = new Client($sid, $token);
    $message=$client->messages->create(
        $mobilenumber,
        array(
            'from' => $twilio_number,
            'body' => $msg
        )
    );
    if ($message->sid) {
        echo "<script>alert('OTP sent successfully')</script>";
        echo "<script>
window.location.assign('verifyotp2.php');</script>";
    }
    exit();
}
else
{
    echo "<script>alert('Invalid details')</script>";
}
}

mysqli_close($connection);
?>

```

After login page

```

<!DOCTYPE html>
<html lang="en">
<head>

```

```

<meta charset="UTF-8">
<meta http-equiv="X-UA-Compatible" content="IE=edge">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>User Profile</title>
<style>
    body {
        font-family: Arial, sans-serif;
        background-color: #f2f2f2;
        color: #333;
        padding: 20px;
    }

    .card {
        background-color: #fff;
        border-radius: 5px;
        padding: 20px;
        box-shadow: 0 2px 5px rgba(0, 0, 0, 0.1);
        margin: 20px auto; /* Center the card horizontally */
        max-width: 400px; /* Limit the maximum width of the card */
    }

    p {
        font-size: 18px;
        margin: 10px 0;
    }

    strong {
        font-weight: bold;
        color: #008080;
    }

    .center {
        display: flex;
        justify-content: center;
        align-items: center;
        margin-bottom: 20px;
    }

    .center a,
    .center button {
        margin: 0 10px;
        width: 250px;
        height: 50px;
        display: flex;
        align-items: center;
        justify-content: center;
        text-decoration: none;
        background-color: #008080;
    }

```

```

        color: #fff;
        border: none;
        border-radius: 5px;
        font-size: 16px;
        margin-top: 240px;
    }

    .center a:hover,
    .center button:hover {
        background-color: #006666;
    }

    .user-profile {
        position: absolute;
        top: 20px;
        left: 20px;
        background-color: #fff;
        border-radius: 5px;
        padding: 20px;
        box-shadow: 0 2px 5px rgba(0, 0, 0, 0.1);
        max-width: 300px;
    }

    .user-profile p {
        margin: 5px 0;
    }
</style>
</head>
<body>
    <div class="user-profile">
        <?php
            // Check if the user is logged in
            require_once "dbconnection.php";
            session_start();

            // Assuming you have established a connection to your database,
            include the necessary code here.
            // $connection = mysqli_connect("localhost", "username",
            "password", "database_name");

            if (isset($_SESSION['username']) && isset($_SESSION['mbn']) &&
isset($_SESSION['domain'])) {
                $username = $_SESSION['username'];
                $mobilenumber = $_SESSION['mbn'];
                $domain = $_SESSION['domain'];
                $status = '';

```



```

        $query = "SELECT status FROM registration WHERE mobilenumber =
'$mobilenumber'";
        $result = mysqli_query($connection, $query);

        if (mysqli_num_rows($result) == 1) {
            while ($row = mysqli_fetch_assoc($result)) {
                $status = $row['status'];
            }
        }

        echo "<p><strong>Username:</strong> $username</p>";
        echo "<p><strong>Mobile number:</strong> $mobilenumber</p>";
        echo "<p><strong>Domain:</strong> $domain</p>";
        echo "<p><strong>Status:</strong> $status</p>";
    }
    ?>
</div>

<div class="center">

    <a href="studentnominee.php">Student Nominees</a>
    <button>Faculty Nominees</button>
</div>

</body>
</html>

```

Student nominee page

```

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <style>
        h3 {
            text-align: center;
            background-color: yellow;
        }

        .center {
            margin-left: auto;

```

```

        margin-right: auto;
    }
    .logout-button {
        position: absolute;
        top: 10px;
        right: 10px;
    }
    .logout-button {
        padding: 10px 20px;
        display: inline-block;
        color: white;
        background-color: #f44336;
        border: none;
        text-decoration: none;
        cursor: pointer;
        border-radius: 4px;
    }

    .logout-button:hover {
        background-color: #d32f2f;
    }

</style>
</head>
<body>
    <br><br><br>
    <h3>STUDENT NOMINEES</h3>

    <table border='2' align="center">
        <tr>
            <td>Photo URL</td>
            <td>Party Name</td>
            <td>Vote</td>
        </tr>
        <?php
            require_once "dbconnection.php";
            session_start();
            if (isset($_SESSION['username'])) {
                $domain = $_SESSION['domain'];
                $query = "SELECT * FROM nomineeeregistration WHERE
domain='$domain'";
                $result = mysqli_query($connection, $query);
                while ($row = mysqli_fetch_assoc($result)) {
                    $photo = $row['photo'];
                    if ($photo != '') {
                        ?>
                    }
                }
            }
        </tr>
    </table>

```

```

        <td width="100" ></td>
        <td width="100"><?php echo $row['partyname']; ?></td>
        <td width="100">
            <form method="post" id="voteForm">
                <input type="hidden" name="partyname" value="<?php echo
$row['partyname']; ?>">
                <input type="submit" name="vote" id="vote" value="Vote">
            </form>
        </td>
    </tr>
<?php
    }
}
?>
</table>
<a href="logout1.php" class="logout-button">Logout</a>

</body>
</html>

<?php
if (isset($_SESSION['username']) && isset($_POST['vote'])) {
    require_once "dbconnection.php";

    $username = $_SESSION['username'];
    $voterid = $_SESSION['vid'];
    $voterparty = $_POST['partyname'];
    $query = "SELECT status FROM registration WHERE username='$username' AND
voterid='$voterid'";
    $result = mysqli_query($connection, $query);

    if ($result && mysqli_num_rows($result) > 0) {
        $row = mysqli_fetch_assoc($result);
        $status = $row['status'];

        if ($status == 'Not Voted') {
            $query = "UPDATE registration SET status='Voted',
votedparty='$voterparty' WHERE voterid='$voterid'";
            $result = mysqli_query($connection, $query);

            if ($result) {
                echo "<script>alert('Your vote has been saved
successfully')</script>";
            } else {

```

```

        echo "<script>alert('An error occurred while saving your vote.
Please try again.')

```

Admin panel

```

<!DOCTYPE html>
<html>
  <head>
    <title>Administration Menu Page</title>
    <style>
      body{
        background-color: whitesmoke;
      }
      nav {
        background-color: #333;
        height: 50px;
        margin-bottom: 20px;
      }

      nav ul {
        list-style: none;
        margin: 0;
        padding: 0;
        display: flex;
      }

      nav li {
        margin: 0;
        padding: 0;
      }

      nav a {
        display: block;
        color: #fff;
        text-decoration: none;
        padding: 0 20px;
        line-height: 50px;
      }
    </style>
  </head>
  <body>

```

```

    nav a:hover {
        background-color: #555;
    }

    h1 {
        font-size: 36px;
        margin: 0;
        padding: 20px;
        text-align: center;
        background-color: yellow;
        margin-top: 5px;
        margin-bottom: 35px;
    }

    p {
        font-size: 18px;
        margin: 0;
        padding: 20px;
    }
    marquee{
        background-color: whitesmoke;
        margin-bottom: 35px;
    }
    .center {
        display: block;
        margin-top: 45px;
    }

</style>
</head>
<body>
    <h1>ONLINE VOTING SYSTEM (Administration)</h1>
    <marquee behavior="ltr" direction="ltr">WELCOME TO ONLINE VOTING
SYSTEM</marquee>
    <nav>
        <ul>
            <li><a href="acceptorreject.php">Voter Details</a></li>
            <li><a href="acceptorreject1.php">Nominee Details</a></li>
            <li><a href="dash1.php">Dashboard</a></li>

        </ul>
    </nav>
    
</body>
</html>

```

Dash Board

```
<!DOCTYPE html>
<html>
<head>
  <title>Dashboard</title>
  <link rel="stylesheet"
href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.0/css/bootstrap.min.css"
">
  <style>
    body {
      background-color: #f8f9fa;
    }
    .container {
      margin-top: 50px;
    }
    .card {
      padding: 20px;
      box-shadow: 0px 0px 10px rgba(0, 0, 0, 0.1);
    }
    h1 {
      text-align: center;
      margin-bottom: 30px;
    }
    .logout-button {
      position: absolute;
      top: 10px;
      right: 10px;
    }
    .logout-button {
      display: inline-block;
      padding: 10px 20px;
      background-color: #f44336;
      color: white;
      text-decoration: none;
      border: none;
      border-radius: 4px;
      cursor: pointer;
    }

    .logout-button:hover {
      background-color: #d32f2f;
    }

  </style>
</head>
<body>
  <div class="container">
    <h1>Dashboard</h1>
```

```

<div class="row">
  <div class="col-lg-4 col-md-6 mb-4">
    <div class="card">
      <h3>Total Users</h3>
      <?php
        require_once 'dbconnection.php';
        $query = "SELECT COUNT(*) AS count FROM registration";
        $result = mysqli_query($connection, $query);
        if ($result && mysqli_num_rows($result) > 0) {
          $row = mysqli_fetch_assoc($result);
          $count = $row['count'];
          echo "<p>Total - $count candidates</p>";
        } else {
          echo "<p>No users found</p>";
        }
      ?>
    </div>
  </div>
  <div class="col-lg-4 col-md-6 mb-4">
    <div class="card">
      <h3>Data Science</h3>
      <?php
        $query = "SELECT COUNT(*) AS count FROM registration
where domain='csd'";
        $result = mysqli_query($connection, $query);
        if ($result && mysqli_num_rows($result) > 0) {
          $row = mysqli_fetch_assoc($result);
          $count = $row['count'];
          echo "<p>Total - $count candidates</p>";
        }
        $query = "SELECT COUNT(*) AS count FROM registration
where status='voted' and domain='csd'";
        $result = mysqli_query($connection, $query);
        if ($result && mysqli_num_rows($result) > 0) {
          $row = mysqli_fetch_assoc($result);
          $count = $row['count'];
          echo "<p>$count voted</p>";
        }
        $query = "SELECT COUNT(*) AS count FROM registration
where status='Not Voted' and domain='csd'";
        $result = mysqli_query($connection, $query);
        if ($result && mysqli_num_rows($result) > 0) {
          $row = mysqli_fetch_assoc($result);
          $count = $row['count'];
          echo "<p>$count not voted</p>";
        }
      ?>
    </div>
  </div>

```

```

        </div>
        <div class="col-lg-4 col-md-6 mb-4">
            <div class="card">
                <h3>Machine Learning</h3>
                <?php
                    $query = "SELECT COUNT(*) AS count FROM registration
where domain='aiml'";
                    $result = mysqli_query($connection, $query);
                    if ($result && mysqli_num_rows($result) > 0) {
                        $row = mysqli_fetch_assoc($result);
                        $count = $row['count'];
                        echo "<p>Total - $count candidates</p>";
                    }
                    $query = "SELECT COUNT(*) AS count FROM registration
where status='voted' and domain='aiml'";
                    $result = mysqli_query($connection, $query);
                    if ($result && mysqli_num_rows($result) > 0) {
                        $row = mysqli_fetch_assoc($result);
                        $count = $row['count'];
                        echo "<p>$count voted</p>";
                    }
                    $query = "SELECT COUNT(*) AS count FROM registration
where status='Not Voted' and domain='aiml'";
                    $result = mysqli_query($connection, $query);
                    if ($result && mysqli_num_rows($result) > 0) {
                        $row = mysqli_fetch_assoc($result);
                        $count = $row['count'];
                        echo "<p>$count not voted</p>";
                    }
                ?>
            </div>
        </div>
        <div class="col-lg-4 col-md-6 mb-4">
            <div class="card">
                <h3>Computer Networks</h3>
                <?php
                    $query = "SELECT COUNT(*) AS count FROM registration
where domain='cn'";
                    $result = mysqli_query($connection, $query);
                    if ($result && mysqli_num_rows($result) > 0) {
                        $row = mysqli_fetch_assoc($result);
                        $count = $row['count'];
                        echo "<p>Total - $count candidates</p>";
                    }
                    $query = "SELECT COUNT(*) AS count FROM registration
where status='voted' and domain='cn'";
                    $result = mysqli_query($connection, $query);

```



```

        if ($result && mysqli_num_rows($result) > 0) {
            $row = mysqli_fetch_assoc($result);
            $count = $row['count'];
            echo "<p>$count voted</p>";
        }
        $query = "SELECT COUNT(*) AS count FROM registration
where status='Not Voted' and domain='cn'";
        $result = mysqli_query($connection, $query);
        if ($result && mysqli_num_rows($result) > 0) {
            $row = mysqli_fetch_assoc($result);
            $count = $row['count'];
            echo "<p>$count not voted</p>";
        }
    }
    ?>
</div>
</div>
<div class="col-lg-4 col-md-6 mb-4">
    <div class="card">
        <h3>Iot and Cyber Security</h3>
        <?php

            $query = "SELECT COUNT(*) AS count FROM registration
where domain='cic'";
            $result = mysqli_query($connection, $query);
            if ($result && mysqli_num_rows($result) > 0) {
                $row = mysqli_fetch_assoc($result);
                $count = $row['count'];
                echo "<p>Total - $count candidates</p>";
            }
            $query = "SELECT COUNT(*) AS count FROM registration
where status='voted' and domain='cic'";
            $result = mysqli_query($connection, $query);
            if ($result && mysqli_num_rows($result) > 0) {
                $row = mysqli_fetch_assoc($result);
                $count = $row['count'];
                echo "<p>$count voted</p>";
            }
            $query = "SELECT COUNT(*) AS count FROM registration
where status='Not Voted' and domain='cic'";
            $result = mysqli_query($connection, $query);
            if ($result && mysqli_num_rows($result) > 0) {
                $row = mysqli_fetch_assoc($result);
                $count = $row['count'];
                echo "<p>$count not voted</p>";
            }
        }
    ?>
</div>
</div>

```

```

<div class="col-lg-4 col-md-6 mb-4">
    <div class="card">
        <h3>CR(BOYS) NOMINEE</h3>
        <?php

            $query = "SELECT COUNT(*) AS count FROM registration";
            $result = mysqli_query($connection, $query);
            if ($result && mysqli_num_rows($result) > 0) {
                $row = mysqli_fetch_assoc($result);
                $count = $row['count'];
                echo "<p>Total - $count candidates</p>";
            }
            $query = "SELECT COUNT(*) AS count FROM registration
where status='voted' and votedparty='CR(BOYS)'";
            $result = mysqli_query($connection, $query);
            if ($result && mysqli_num_rows($result) > 0) {
                $row = mysqli_fetch_assoc($result);
                $count = $row['count'];
                echo "<p>$count voted</p>";
            }

        ?>
    </div>
</div>
</div>
</div>
<a href="logout.php" class="logout-button">Logout</a>

</body>
</html>

```

CHAPTER – 6

RESULTS

6. RESULTS

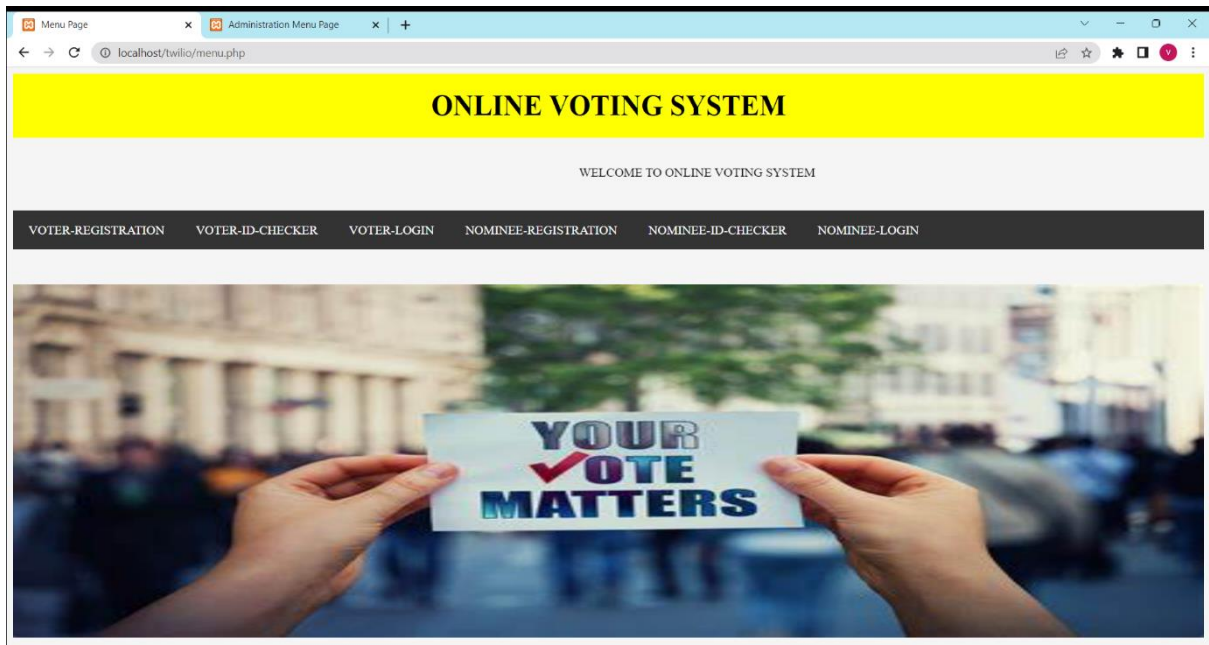


fig 6.1 – users menu page



fig 6.2 – Administration menu page

Registration

Upload Photo:
Choose File WhatsApp I... 13.46.31.jpg (.jpg,.jpeg,.png and <500kb)

Upload Aadhar:
Choose File WhatsApp I... 13.48.09.jpg (.jpg,.jpeg,.png and <500kb)

Full Name:
Thunuguntla Sai Venkatesh
(as per Aadhar)

Date-Of-Birth:
07-10-2004 (as per Aadhar)

Select Course:
Btech

Select Branch:
CSE

Select Domain:
data science

Mobile Number:
+917702217559
(ex: +91XXXXXXXXXX)

Submit

Fig 6.3 – Voter Registration form page

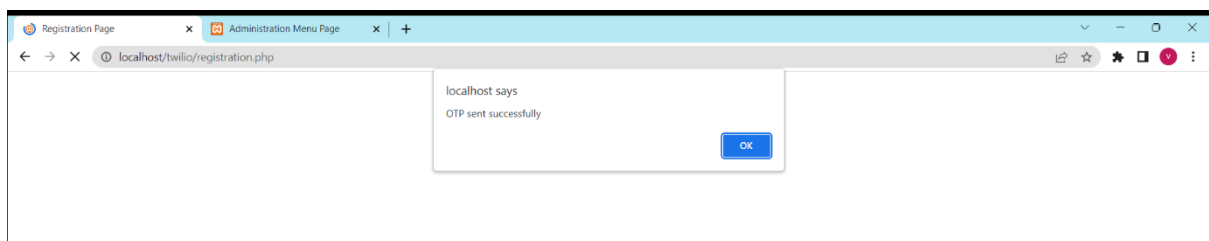


Fig 6.4 – OTP sent successfully page

OTP LOGIN SYSTEM USING TWILIO

OTP Number:
5045

Verify

Fig 6.5 – Enter OTP number

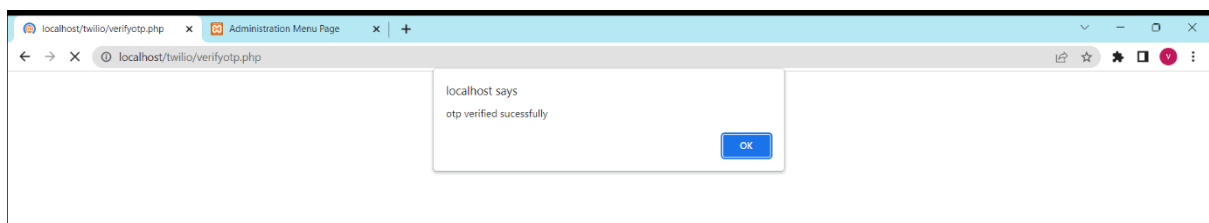
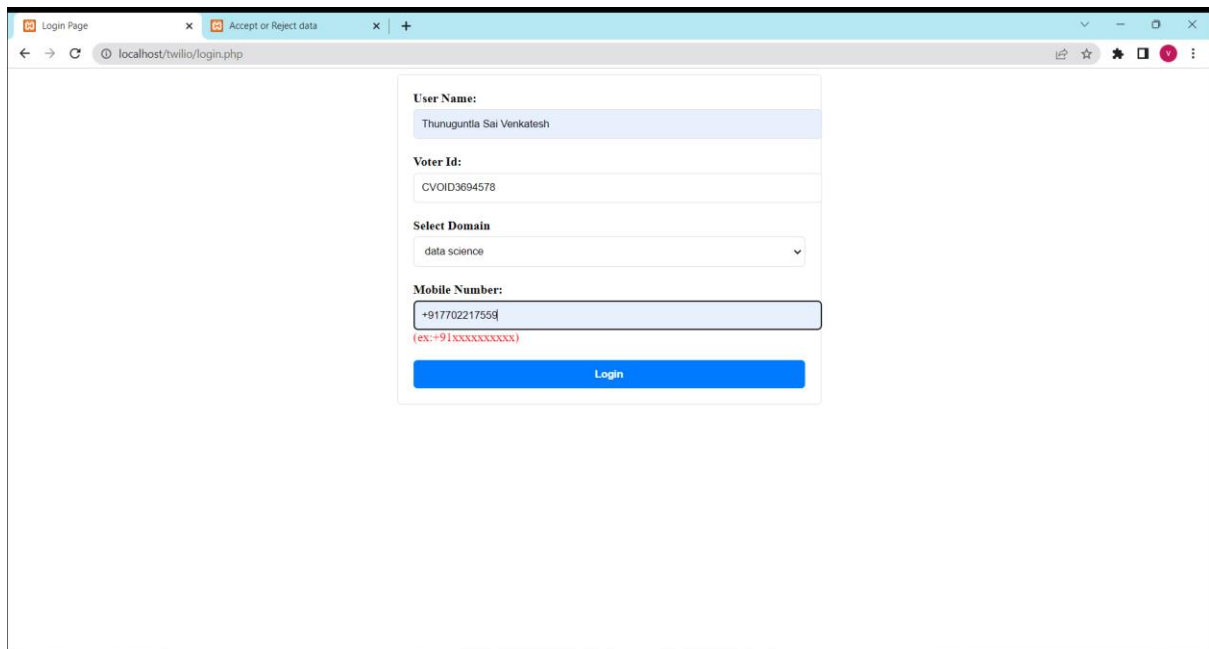
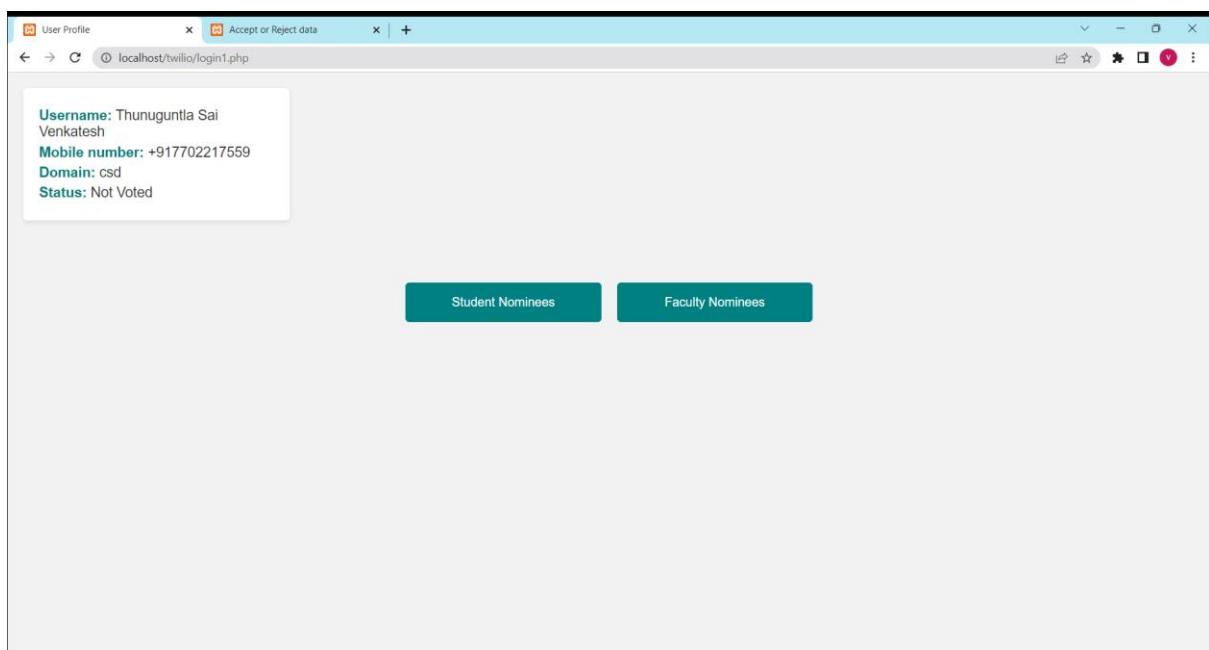


Fig 6.6 – OTP Verified successfully



A screenshot of a web browser showing the 'Login Page' at the URL 'localhost/twillio/login.php'. The page contains a login form with the following fields: 'User Name' (filled with 'Thunuguntla Sai Venkatesh'), 'Voter Id' (filled with 'CVOID3694578'), 'Select Domain' (a dropdown menu with 'data science' selected), and 'Mobile Number' (filled with '+917702217559', with a red error message '(ex: +91 xxxxxxxxxxxx)' below it). A blue 'Login' button is at the bottom of the form.

Fig 6.7 – Voter Login Page



A screenshot of a web browser showing the 'User Profile' page at the URL 'localhost/twillio/login1.php'. The page displays a user profile card with the following information: 'Username: Thunuguntla Sai Venkatesh', 'Mobile number: +917702217559', 'Domain: csd', and 'Status: Not Voted'. Below the profile card, there are two teal buttons: 'Student Nominees' and 'Faculty Nominees'.

Fig 6.8 – Voter profile page

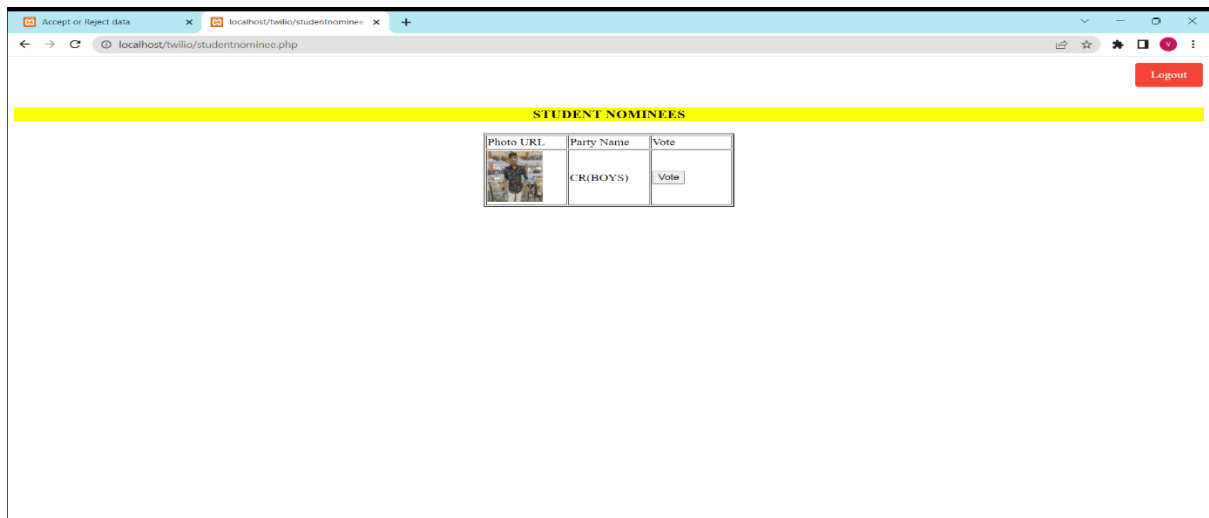


Fig 6.9 -After click on student nominee button the web page is like this.

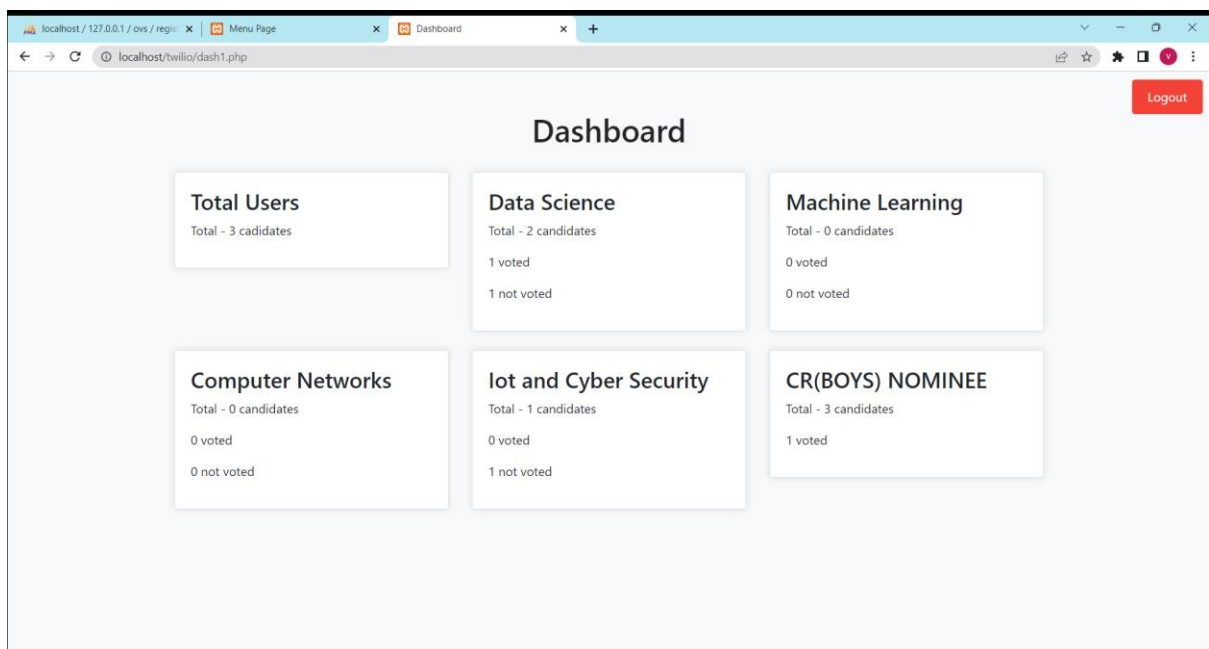


Fig 6.10 – Dash Board (Administration can see)

DATA PRESENT IN OUR DATABASE

photo url	image url	user name	date of birth	course	branch	domain	mobile number	Voter id	Status	Voted party	Accept	Reject
		Thammineni Harsha Vardhan	2003-04-09	Btech	cse	csd	919392481268	CVOID7390485	Not Voted		<input type="button" value="Accept"/>	<input type="button" value="Reject"/>
		Kuntumalla Ranga Dharm Teja	2003-12-30	Btech	cse	cic	918688867246	CVOID3910625	Not Voted		<input type="button" value="Accept"/>	<input type="button" value="Reject"/>
		Thunuguntla Sai Venkatesh	2004-10-07	Btech	cse	csd	917702217559	CVOID3694578	Not Voted		<input type="button" value="Accept"/>	<input type="button" value="Reject"/>

Fig 6.11 – Accepting or reject the voter application (Administration)

DATA PRESENT IN OUR DATABASE

Voter id	mobile number	Nominee id	Party Photo	party name	Domain	Accept	Reject
CVOID3694578	917702217559	CNOID0379528		CR(BOYS)	csd	<input type="button" value="Accept"/>	<input type="button" value="Reject"/>

Fig 6.12 – Accepting or reject the Nominee application (Administration)

CHAPTER – 7

CONCLUSION AND FUTURE WORK

7 CONCLUSION AND FUTURE WORK

In conclusion, while the idea of online voting holds promises in terms of convenience and accessibility, it is evident that implementing a secure and reliable online voting system poses significant challenges. Overcoming concerns related to security, privacy, accessibility, technical reliability, and public trust is essential. Extensive research, technological advancements, and careful planning are necessary to develop an online voting system that can truly address these challenges and provide a trustworthy and inclusive voting experience for citizens.

Future Work:

In future Enhancement the online voting system will be used to store data in cloud rather than localhost. In this project we use localhost. And also, the link can be able to access by everyone.

We can also add some additional features like timer for the voting system.

CHAPTER – 8

BIBLIOGRAPHY

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- 1) <https://www.slideshare.net/nitinbhasin3/online-voting-system-project-file>
- 2) <https://github.com/topics/online-voting-system>
- 3) <https://jpinfotech.org/online-election-system-online-voting-system/>
- 4) <https://www.geeksforgeeks.org/voting-system-project-using-django-framework/>
- 5) https://www.cs.jhu.edu/~rubin/courses/sp03/group-reports/group8/group8_lit-review.pdf