A PROJECT REPORT

on

Online Voting System

Submitted by

Mr. Owais Mirkar Mr. Zishan Shaikh

in partial fulfilment for the award of the degree of

BACHELOR OF SCIENCE

in

COMPUTER SCIENCE

under the guidance of

Prof. Anushka Padhye

Department of Computer Science



Royal College of Arts, Science and Commerce Sem V 2024 – 2025

PROFORMA FOR THE APPROVAL PROJECT PROPOSAL

PN	VR No.:	Roll no:
1.	Name of the Student	
2.	Title of the Project	
3.	Name of the Guide :	
4.	Teaching experience of the Guide	
5.	Is this your first submission?	Yes No
Sig	gnature of the Student	Signature of the Guide
Da	ite:	Date:
Sig	gnature of the Coordinator	
Da	ıte:	



Royal College of Arts, Science and Commerce, BhaktiVedanta Swami Marg, Shrishti Complex,Mira Road East, Maharashtra 401107.

Department of Computer Science

CERTIFICATE

This is to certify that Mr. Owais Mirkar and Zishan Shaikh of T.Y.B.Sc. (Sem V) class has satisfactorily completed the Project Online Voting System, to be submitted in the partial fulfilment for the award of Bachelor of Science in Computer Science during the academic year 2024 – 2025.

•	C	•	
Date of Submission:			
Project Guide		Head/Incharg Department Computer Scien	•

College Seal

Signature of Examiner

DECLARATION

I, Zishan Shaikh and Owais Mirkar, hereby declare that the project entitled
"Online Voting System" submitted in the partial fulfilment for the award of
Bachelor of Science in Computer Science during the academic year 2024 -
2025 is our original work and the project has not formed the basis for the award
of any degree, associateship, fellowship or any other similar titles.
Signature of the Student:
Place:
Date:

ACKNOWLEDGEMENT

Achievement is finding out what you would be doing rather than what you have to do. It is not until you undertake such a project that you realise how much effort and hard work it really is, what are your capabilities and how well you can present yourself or other things. It tells us how much we rely on the efforts and goodwill of others. It gives me immense pleasure to present this report towards the fulfilment of my project.

It has been rightly said that we are built on the shoulders of others. For everything We have achieved, the credit goes to all those who have helped us to complete this project successfully.

We take this opportunity to express my profound gratitude to **Founder Sir Prof. Asgar E. Lakdawala, Principal Dr. Kalpana Jain Patankar** and management of **Royal College of Arts, Science & Commerce, Mira Road (E)** for giving us this opportunity to accomplish this project work.

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Finally, We would like to thank the entire Computer Science department who directly or indirectly helped us in completion of this project & to my family without whose support, motivation & encouragement this would not have been possible.

Owais Sharif Mirkar

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CHAPTER 1 INTRODUCTION

1. <u>Introduction</u>

For voters in India, the process of casting a vote, especially in national elections, can be fraught with challenges. The current system has loopholes, such as the misuse of election bonds, which can raise concerns about transparency. Additionally, voters often face the hassle of standing in long queues at polling stations, which can be both time-consuming and discouraging for some citizens. These inefficiencies underline the need for a more streamlined and secure voting process.

Introducing the Online Voting System, a web application designed to revolutionize the way Indians vote for the Prime Minister. Our platform allows voters to cast their ballots from the comfort of their homes, eliminating the need for physical presence at polling booths. The system is built to handle large volumes of data, ensuring secure and transparent elections by leveraging advanced encryption and user verification methods.

Based on the id segregation between the voter and administrator is carried out initially. If the user id is invalid then an error message will be displayed. If the id entered is of type administrator then an information i.e., the election status will be displayed which changes dynamically. Otherwise the voter information will be displayed which changes dynamically depending on the changes made which will proceed him to the next level in which he can cast his vote and it is updated automatically.

Embrace the future of democracy with the Online Voting System. Experience a more efficient, transparent, and secure way to vote, empowering every Indian citizen to take part in election.

1.1 Background and Project Overview

The project is a Web Application developed using PHP, HTML, JavaScript, CSS, and MySQL. It is designed to facilitate online voting for the election of the Prime Minister of India. The system ensures secure and efficient voting processes by incorporating robust user authentication and encryption mechanisms. The application is divided into two main sections: (i) Voter Registration and (ii) Voting Process. In the Voter Registration section, users provide their personal details, which are securely stored in the MySQL database. The Voting Process section allows authenticated users to cast their vote for the candidates. This system ensures transparency, security, and efficiency, making the voting experience accessible and reliable.

In this voting system each voter will be provided with a specific voter-id and a password through which access for the voting can be granted. If once the access is granted for a voter-id then the access is denied for logging in till the voting system is refreshed for the next election. Similarly the administrator will be provided with a special id through which he can view the status of the election.

The advantages of the online voting system are that the speed of information retrieval and updating is made easy and other advantages are:

- (1) Online implementation makes it easy for voters to participate in election.
- (2) It becomes easier to conduct election.
- (3) Election expenses can be reduced.
- (4) Non-Residential citizens can also participate in the election.

1.2 Objectives

1. Planned Approach Towards Working

The working in the organization will be well planned and organized. The data will be stored properly in data stores which will help in retrieval of information as well as its storage.

2. Eliminate Physical Voting Barriers

Allow voters to cast their ballots online from the comfort of their homes, reducing the hassle of traveling to polling stations and standing in long queues. This digital process makes voting more convenient for all citizens, especially those in remote areas.

3. Enhance Transparency in Election Processes

Integrate robust security measures to create a transparent voting process that ensures every vote is traceable and tamper-proof.

4. Improve Voter Participation

: By offering a more accessible, online platform, the system encourages greater voter participation, particularly for those with limited mobility or time.

5. Dynamic and Real-Time Election Status Tracking

Provide dynamic, real-time updates on the election process for both voters and administrators. Voters can track the status of their vote, while administrators can monitor overall election progress, enhancing visibility and engagement.

6. Automated Vote Counting and Instant Updates

Enable real-time, automated vote counting for quick, accurate results with instant voter updates.

1.3 Purpose and Scope

1.3.1 Purpose

The purpose of the Online Voting System is to provide a secure, accessible, and efficient platform for Indian citizens to cast their votes in national elections. Recognizing the challenges in the current system, such as long queues, physical inconvenience, and transparency concerns, this web application streamlines the voting process by allowing users to vote from the comfort of their homes.

By leveraging advanced encryption and user verification, the system ensures that voting is both secure and transparent, addressing issues like fraud and misuse of election bonds. The platform is designed to accommodate large volumes of voters and provides real-time updates for both administrators and voters. This system aims to increase voter participation, simplify the voting experience, and ultimately strengthen democracy by empowering every citizen to take part in the electoral process without unnecessary barriers.

Furthermore, the platform is designed to be scalable, allowing for the integration of additional features or algorithms to meet future electoral needs. By simplifying the voting process and ensuring a secure, transparent, and inclusive system, the Online Voting System plays a crucial role in modernizing India's democratic infrastructure, making it more accessible and reliable for all citizens.

1.3.2 Scope

The Online Voting System project focuses on facilitating secure and efficient electoral processes, specifically tailored for Indian national elections. It accommodates a large volume of voters and is designed to be accessible across various devices and internet connections, allowing citizens to cast their votes conveniently from home. The system addresses the challenges associated with traditional voting methods, such as long queues and transparency issues, by streamlining the voting process and enhancing accessibility.

A key feature of this system is its user-friendly interface, which simplifies the process of user authentication, vote casting, and result tracking. Voters can easily navigate the platform to select candidates and submit their votes, while real-time updates keep them informed about the election status. The system also includes robust security measures, utilizing advanced encryption techniques to ensure that all votes are confidential and tamper-proof.

<u>Future Scope</u>

In addition, the Online Voting System automates the vote counting process, providing instant results and comprehensive reports on voter participation and candidate performance. This feature ensures quick and accurate results, enhancing trust in the electoral process. Furthermore, the platform is scalable and adaptable, allowing for the integration of new features and improvements over time. Overall, the Online Voting System aims to empower Indian citizens by making the voting process more efficient, transparent, and accessible.

1.4 Phase Title

Phase Title	Expected Date of Completion	Actual Time of Completion with Guide's Signature	Remarks
I. Preliminary Investigation			
(i) Project Overview)		
(ii) Feasibility Study	08/01/2024		
(iii) Phase Title			
(iv) Gantt Chart	J		
II. System Analysis			
(i) Existing System)		
(ii) Proposed System	15/01/2024		
(iii) System Requirements	J		
III. System Design			
(i) Flow Chart			
(ii) Use Case Diagram) 05/02/2024		
(iii) Sequence Diagram	J		
(iv) ER Diagram			
IV. System Coding)		
(i) Model Building			
(ii) System Coding	12/03/2024		
(iii) Testing Approaches	J		
V. Future Enhancements	19/03/2024		
VI. References	29/03/2024		

1.5 Gantt Chart

Contt Chart	Chart	Time	Lann	24.0			Fehr	February			March	ų		
damu	Cilait	11111	January	агу			reni	uaiy			Mai			
			W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4
1	Preliminary Investigation and	Estimated												
	Kesearch	Actual												
2	System Design	Estimated												
		Actual												
3	System Coding	Estimated												
		Actual												
4	Debugging and Testing	Estimated												
		Actual												
5	Research Paper Publication	Estimated												
		Actual												
9	Documentation	Estimated												
		Actual												

CHAPTER 2 SYSTEM ANALYSIS

2.1 Existing System

Before the development of the Online Voting System, the traditional voting process in India presented several challenges that hindered efficient and secure elections. The existing system often relied on physical polling booths, requiring voters to stand in long queues, which led to frustration and reduced voter turnout. Additionally, the manual counting of votes created opportunities for errors and discrepancies, raising concerns about the accuracy and integrity of election results.

Challenges in the Existing System:

- 1. Long Queues and Accessibility Issues: Voters often face long waiting times at polling stations, which can discourage participation, particularly for those with mobility issues or time constraints.
- 2. Manual Vote Counting And Potential Errors: he traditional system relies on manual counting of votes, which increases the risk of human error and inaccuracies.
- 3. Concerns Over Security And Transparency: The existing system is vulnerable to electoral fraud, including tampering and misuse of election bonds.
- 4. Cumbersome Voter Verification: Voter identity verification can be inefficient and prone to errors, often requiring extensive documentation. This complicates the voting process and can disenfranchise eligible voters who may struggle to provide the necessary identification.

<u>Limitations of the Existing System:</u>

- 1. Limited Reach and Accessibility: The traditional voting system often hinders access for marginalized individuals and those with disabilities.
- 2. Vulnerability to Election Day Disruptions: The existing might disrupt on election day from disasters, technical problems, or security threats.
- 3. Inconsistent Standards Across Regions: Regions may have different voting procedures causing inconsistencies in the electoral process.

2.1 Proposed System

The proposed Online Voting System aims to address the limitations of the existing voting process by providing a secure, efficient, and accessible platform for citizens to cast their votes. This system leverages advanced encryption and user-friendly interfaces to simplify the voting experience while ensuring the integrity of the electoral process. By allowing voters to participate from the comfort of their homes, the proposed system seeks to enhance voter turnout and improve transparency in elections.

Key Features of the Proposed System:

- 1. Secure Voting Process: The system employs advanced encryption techniques to ensure the confidentiality and integrity of each vote cast, safeguarding against tampering.
- 2. User-Friendly Interface: A straightforward and intuitive interface allows voters to easily navigate the platform, select candidates, and cast their votes without confusion.
- 3. Real-Time Updates: Provides voters with real-time information about their voting status and election progress, enhancing transparency and trust in the electoral process.
- 4. Automated Vote Counting: The system automates the vote counting process, delivering quick and accurate results while minimizing the risk of human error.
- 5. Accessibility: Designed to be accessible across multiple devices, enabling voters to participate from anywhere, including remote locations and for those with disabilities.
- 6. Voter Verification: Implements strong voter identity verification to ensure only eligible individuals can vote, enhancing election integrity.
- 7. Comprehensive Reporting: Generates reports on voter participation and candidate performance, providing insights for future elections.

2.3 Requirement Analysis

2.3.1 Hardware Requirements

Component	Recommended Specifications
Processor	Processor: core i5 or higher
RAM	At least 8 GB

2.3.1 Software Requirements

Software Component	Required Version
Operating System	Windows, Linux, Mac.
Languages	PHP,HTML,CSS,JavaScript
Database	MYSQL
Browser	Microsoft Edge
Tools	XAMPP, WAMPP, Visual Studio Code

CHAPTER 3 SYSTEM DESIGN

3.1 System Flow Chart

3.1 Flow Chart

3.2 <u>UML Diagrams</u>

3.2.1 Use Case Diagram

3.2.1 Use Case Diagram

3.2.2 Sequence Diagram

3.2.2 Sequence Diagram

3.2.3 Entity Relationship Diagram

3.2.3 Entity Relationship Diagram

CHAPTER 4 IMPLEMENTATION AND TESTING

4.1 Code

4.1.1 Registration Page

```
# Machine Learning Model Selection Tool
<!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>Raat ko Form</title>
  <style>
    body {
       font-family: Arial, sans-serif;
       background-color: #f8f9fa;
       margin: 0;
       background-image:
url('../Image/bg.gif');
       padding: 50px;
     }
    .container {
       max-width: 600px;
       background: white;
       padding: 30px;
       border-radius: 8px;
       box-shadow: 0 0 10px rgba(0, 0, 0,
0.1);
       margin: auto;
     }
    .title {
       color: green;
       margin-bottom: 20px;
    .input-field {
       margin-bottom: 15px;
    .input-field label {
       display: block;
       margin-bottom: 5px;
```

```
}
     .input-field input, .input-field select {
        width: 100%;
        padding: 10px;
        border: 1px solid #ccc;
        border-radius: 5px;
     }
     .submit {
        width: 100%;
        padding: 10px;
        background-color: green;
        color: white;
        border: none;
        border-radius: 5px;
        cursor: pointer;
     .submit:hover {
        background-color: darkgreen;
  </style>
</head>
<body>
  <div class="container">
     <header>
        <h2>Registration Form</h2>
     </header>
     <form action="VoterRegistration.php"</pre>
method="post" enctype="multipart/form-
data">
       <div class="details personal">
          <span class="title">Personal
Details</span>
          <div class="input-field">
             <label>Full Name <span
style="color: red;">*</span></label>
             <input type="text"</pre>
placeholder="Enter your name"
name="name" required>
          </div>
          <div class="input-field">
             <a href="mailto:</a> <a href="mailto:label">Label</a> <a href="Date">Date of Birth < span</a>
style="color: red;">*</span></label>
             <input type="date"</pre>
name="dob" required>
```

```
</div>
          <div class="input-field">
             <label>Email <span
style="color: gray; font-
size:10px;">(optional)</span></label>
             <input type="text"
placeholder="Enter your email"
name="email">
          </div>
          <div class="input-field">
             <a href="mailto:<a href="mailto:label">label</a>> Mobile Number < span
style="color: red;">*</span></label>
             <input type="number"
placeholder="Enter mobile number"
name="mobile" required>
          </div>
          <div class="input-field">
             <label>Gender <span
style="color: red;">*</span></label>
             <select required
name="gender">
               <option disabled</pre>
selected>Select gender</option>
               <option>Male</option>
               <option>Female
               <option>Others</option>
             </select>
          </div>
          <div class="input-field">
             <a href="mailto:<a href="mailto:label">label</a>>Upload Your Image
<span style="color: red;">*</span></label>
             <input type="file" required</pre>
name="photo">
          </div>
       </div>
       <div class="details ID">
          <span class="title">Identity
Details</span>
          <div class="input-field">
             <label>ID Type <span
style="color: gray; font-
size:10px;">(optional)</span></label>
             <input type="text"</pre>
placeholder="Enter ID type"
```

```
name="idtype">
                             </div>
                             <div class="input-field">
                                     <label>VoterId Number <span
style="color: red;">*</span></label>
                                     <input type="number"
placeholder="Enter ID number"
name="cnic" required>
                             </div>
                             <div class="input-field">
                                     <label>Issued Date <span
style="color: red;">*</span></label>
                                     <input type="date"
name="issue" required>
                             </div>
                              <div class="input-field">
                                     <label>Expiry Date <span
style="color: gray; font-
size:10px;">(optional)</span></label>
                                     <input type="date"
name="expire">
                             </div>
                              <div class="input-field">
                                     <a href="mailto:<a href="mailt
style="color: red;">*</span></label>
                                     <input type="password"
placeholder="Create Password"
name="pass" required>
                              </div>
                              <div class="input-field">
                                     <label>Confirm Password
<span style="color: red;">*</span></label>
                                     <input type="password"</pre>
placeholder="Confirm Password"
name="cpass" required>
                             </div>
                      </div>
                      <button class="submit"
type="submit">Submit</button>
              </form>
       </div>
</body>
</html>
```

4.1.2 Voter 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,</pre>
initial-scale=1.0">
  <title>Responsive Login Form</title>
  <style>
    body {
       display: flex;
       justify-content: center;
       align-items: center;
       height: 100vh;
       background-image:
url('../Dashboard/images/hola.gif');
       margin: 0;
       background-color: #f0f0f0;
     }
    .login-box {
       width: 350px;
       padding: 20px;
       background-color: white;
       box-shadow: 0 0 10px rgba(0, 0, 0, 0.2);
       border-radius: 8px;
       text-align: center;
     }
    input {
       width: 100%;
       max-width: 100%;
       padding: 10px;
       margin: 10px 0;
       border: 1px solid #ccc;
       border-radius: 4px;
       box-sizing: border-box;
     }
    button {
       width: 100%;
```

```
padding: 10px;
       background-color: #007bff;
       color: white;
       border: none;
       border-radius: 4px;
       cursor: pointer;
     }
    button:hover {
       background-color: #0056b3;
  </style>
</head>
<body>
  <div class="login-box">
    <header>Login Form</header>
    <form action="login.php" method="post">
         <input type="text" placeholder="Enter CNIC No"</pre>
name="cnic" required>
       </div>
       <div>
         <input type="text" placeholder="Enter Mobile</pre>
NO" name="mobile" required>
       </div>
       <div>
         <input type="password" placeholder="Enter</pre>
password" name="pass" required>
       </div>
       <div>
         <button type="submit">Submit</button>
       </div>
    </form>
  </div>
</body>
</html>
4.1.3 Admin Login Page
<?php
session_start();
?>
```

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-
width, initial-scale=1">
  <title>Admin Login</title>
  link
href="https://cdn.jsdelivr.net/npm/bootstrap@5.0.2/dist/c
ss/bootstrap.min.css" rel="stylesheet" integrity="sha384-
EVSTQN3/azprG1Anm3QDgpJLIm9Nao0Yz1ztcQTwFs
pd3yD65VohhpuuCOmLASjC"
crossorigin="anonymous">
  <script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.0.2/dist/js/
bootstrap.bundle.min.js" integrity="sha384-
MrcW6ZMFY1zcLA8N1+NtUVF0sA7MsXsP1UyJoMp4
YLEuNSfAP+JcXn/tWtIaxVXM"
crossorigin="anonymous"></script>
  k rel="stylesheet"
href="https://cdnjs.cloudflare.com/ajax/libs/font-
awesome/4.7.0/css/font-awesome.min.css">
  <style>
    body {
       font-family: Arial, sans-serif;
      background-color: #f8f9fa;
      background-image: url('images/hola.gif');
      background-size: cover;
      padding: 50px;
    .container {
      max-width: 400px;
      background: white;
      padding: 30px;
      border-radius: 8px;
      box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);
      margin: auto;
    }
    .title {
      color: green;
      margin-bottom: 20px;
    .submit {
```

```
width: 100%;
       padding: 10px;
       background-color: green;
       color: white;
       border: none;
       border-radius: 5px;
       cursor: pointer;
     .submit:hover {
       background-color: darkgreen;
  </style>
</head>
<body>
<div class="container">
  <header>
    <h2>Admin Login Form</h2>
  </header>
  <form action="Admin Login/Adminlogin.php"</pre>
method="post" enctype="multipart/form-data">
    <div class="mb-3">
       <label for="adminName" class="form-</pre>
label">Name:</label>
       <input type="text" class="form-control"</pre>
id="adminName" name="name" required>
    </div>
    <div class="mb-3">
       <label for="adminPassword" class="form-</pre>
label">Password</label>
       <input type="password" class="form-control"</pre>
id="adminPassword" name="password" required>
    </div>
    <div class="mb-3 form-check">
       <input type="checkbox" class="form-check-</pre>
input" id="adminCheck">
       <label class="form-check-label"</pre>
for="adminCheck">Check me out</label>
    </div>
    <div class="d-grid gap-2">
       <button class="submit"
type="submit">Login</button>
    </div>
  </form>
```

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

4.1.4 Voter Dashboard

```
<?php
      session start();
      $voterdata=$_SESSION['voterdata'];
      $conn = mysqli_connect('localhost', 'root', ", 'voterdatabase');
     $query = "SELECT * FROM addcandidate";
      $result = mysqli_query($conn, $query);
      if($_SESSION['voterdata']['status']==0){
            $status = '<b style="color:green;">Not Voted</b>';
      }
      else{
            $status='<b style = "color:red;">Voted</b>';
?>
<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <title>Dashboard</title>
  <\!\!link\ href="https://cdn.jsdelivr.net/npm/bootstrap@5.0.2/dist/css/bootstrap.min.css"
rel="stylesheet" integrity="sha384-
EVSTQN3/azprG1Anm3QDgpJLIm9Nao0Yz1ztcQTwFspd3yD65VohhpuuCOmLASi
C" crossorigin="anonymous">
  <script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.0.2/dist/js/bootstrap.bundle.min.js"
integrity="sha384-
MrcW6ZMFYlzcLA8Nl+NtUVF0sA7MsXsP1UyJoMp4YLEuNSfAP+JcXn/tWtIaxVX
M" crossorigin="anonymous"></script>
  <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-</pre>
awesome/4.7.0/css/font-awesome.min.css">
  <link rel="stylesheet" href="https://www.w3schools.com/w3css/4/w3.css">
  <style>
    .nav-item a {
```

```
color: whitesmoke;
    .nav-item a:hover {
      color: whitesmoke;
      background-image: url('/changes/kkrrh/admin/images/hola.gif');
      border-radius: 10px;
    }
    #main-sec {
      box-shadow: 2px 2px 10px rgba(0, 0, 0, 0.9);
  </style>
</head>
<body>
<nav class="navbar navbar-dark bg-dark">
  <div class="container-fluid">
    <a class="navbar-brand"><i class="fa fa-fw fa-globe"></i>Bharat Voting
System</a>
    cli class="nav-item">
         <a class="nav-link active" aria-current="page" href="#"><i class="fa fa-fw fa-
home"></i>Home</a>
      cli class="nav-item">
         <a class="nav-link" href="#"><i class="fa fa-fw fa-search"></i>Search</a>
      cli class="nav-item">
         <a class="nav-link" href="#"><i class="fa fa-fw fa-envelope"></i>Contact
us < /a >
      </div>
</nav>
<div id="carouselExampleCaptions" class="carousel slide" data-bs-ride="carousel">
  <div class="carousel-indicators"></div>
  <div class="carousel-inner">
    <div class="carousel-item active">
      <img src="images/hola.gif" class="d-block w-100" height="500px" alt="...">
      <div class="carousel-caption d-md-block">
         <h5>Welcome To The New Age Of Voting</h5>
         Some representative placeholder content for the first slide.
      </div>
                                                                       28
```

```
</div>
 </div>
</div>
<br><br><br>>
<div class="container-fluid">
 <div class="row">
   <div class="col-sm-4">
     <div class="card mb-3" style="max-width: 540px;">
       <div class="card-header">
         <marquee>Vote Can Be Cast Only Once</marquee>
       </div>
       <div class="row g-0">
         <div class="col-md-4">
           <img src="../VoterImg/<?php echo $voterdata['photo']?>" class="img-
fluid rounded-start" alt="...">
         </div>
         <div class="col-md-8">
           <div class="card-body">
             <h5 class="card-title">Description</h5>
             Name: <?php echo $voterdata['name']; ?>
               Mobile No: <?php echo $voterdata['mobile']; ?>
               CNIC No: <?php echo $voterdata['cnic']; ?>
             <h5 class="card-title">Status: <?php echo $status ?> </h5>
           </div>
         </div>
       </div>
     </div>
   </div>
   <div class="col-sm-8">
     <thead>
         Candidate Details
           Symbol
           Photo
         </thead>
       <?php while($row=mysqli_fetch_assoc($result)){ ?>
         Candidate Name: <?php echo $row['cname'] ?>
```

```
Party Name: <?php echo $row['cparty'] ?>
               Total Votes:<?php echo $row['votes'] ?>
                      <form action="Admin Login/vote.php" method="post">
                      <input type="hidden" name="gvotes" value="<?php echo</pre>
$row['votes'] ?>">
                      <input type="hidden" name="gid" value="<?php echo</pre>
$row['id'] ?>">
                      <?php
                            if($_SESSION['voterdata']['status']==0){
                            <button type="submit" class="btn btn-
danger">Vote</button>
                      <?php
                      else{
                      ?>
                      <button disabled type="button" class="btn btn-
danger">Vote</button>
                      <?php
             </form>
             <img src="Admin Login/Image/<?php echo $row['symbol']?>"
width="40%" style="border-radius:10%">
             <img src="Admin Login/Image/<?php echo $row['photo']?>"
width="40%" style="border-radius:10%">
          <?php } ?>
        </div>
  </div>
</div>
<script>
function openRightMenu() {
  document.getElementById("rightMenu").style.display = "block";
}
function closeRightMenu() {
  document.getElementById("rightMenu").style.display = "none";
</script></body></html>
                                                                     30
```

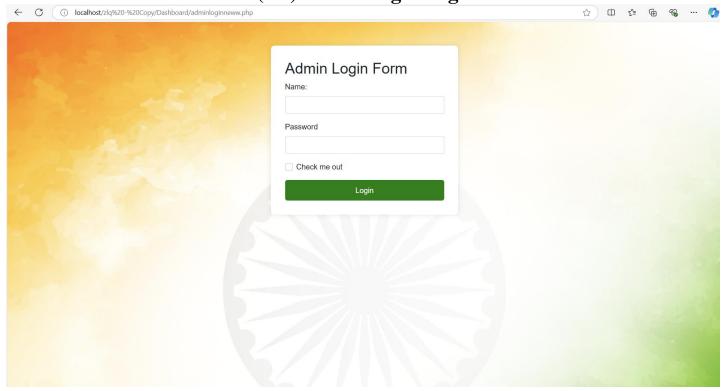
4.2 Testing Approach

- Unit test cases were tested manually.
- After all unit tests passed the test, overall exploratory tests were done by third-person.

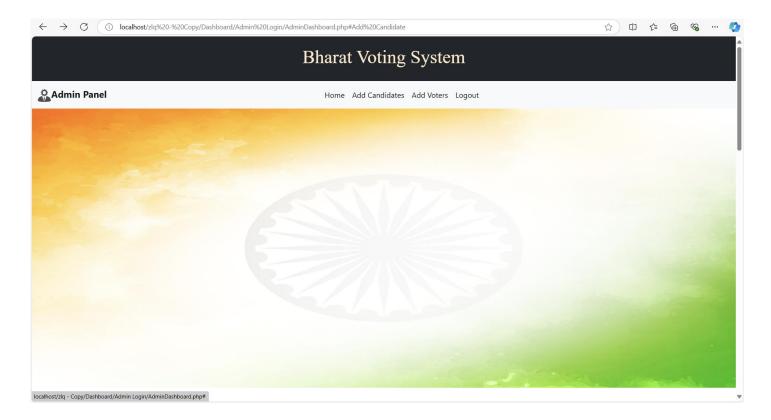
Test Cases	Expected Result	Actual Result	Status
Voter Registration	All navigations should redirect to appropriate page.	New voters can register with valid details.	Pass
Authentication	Registered voters should be able to log in successfully.	Registered voters can log in successfully.	Pass
Vote Confirmation	Voters should receive a confirmation message after voting.	Voters receive a confirmation message after voting.	Pass
Candidate List Display	A list of candidates should be displayed to voters.	A list of candidates is displayed to voters.	Pass
Vote Duplication	Voters should not be able to vote more than once.	Voters cannot vote more than once.	Pass
Admin Access	Admin should be able to access admin panel securely.	Admin can access the admin panel securely.	Pass

CHAPTER 5 RESULTS

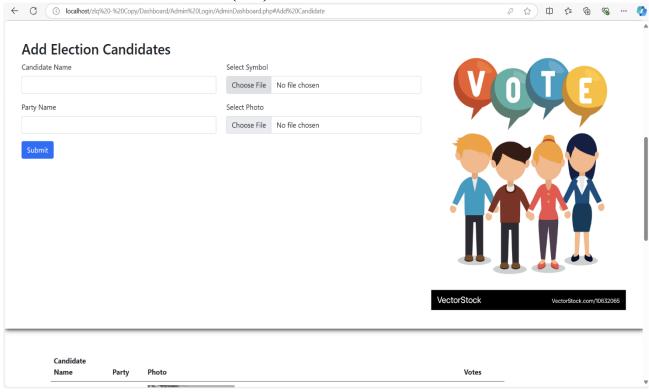
(5.1)Admin Login Page



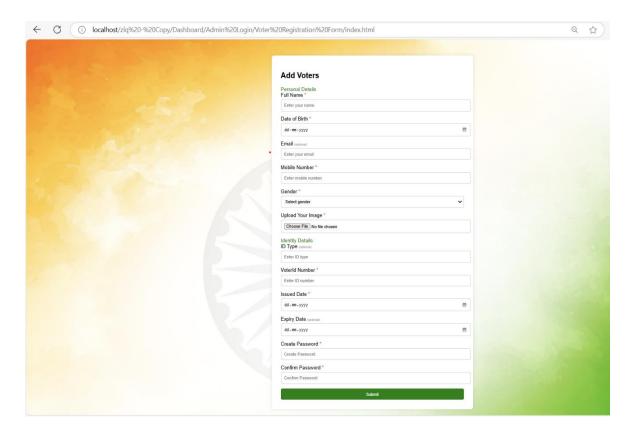
(5.2)Admin Dashboard

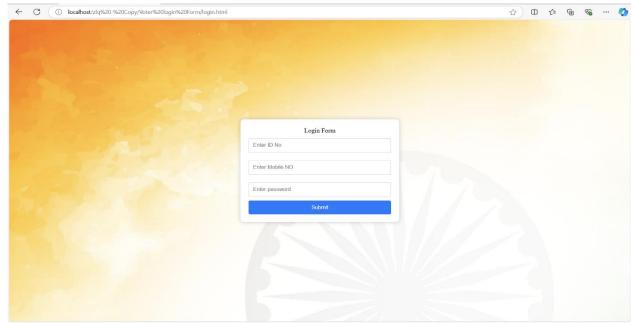


(5.3)Add Candidates



(5.3)Add Voters





5.3Voter Login



CHAPTER 6 CONCLUSION AND FUTURE WORK

Conclusion

In conclusion, the Online Voting System represents a pivotal advancement in the way elections are conducted, particularly in facilitating a secure and efficient platform for casting votes in the digital age. By addressing the challenges of traditional voting systems, such as logistical inefficiencies, security vulnerabilities, and lack of accessibility, this system offers a robust solution tailored for modern democratic processes.

With features like authentication, secure vote casting, real-time vote tallying, and transparent election monitoring, the system empowers voters and election officials alike. Its user-friendly interface ensures ease of use for voters, while its strong security measures, including encryption and voter verification, safeguard the integrity of the election process.

Moreover, the scalability and flexibility of the Online Voting System ensure its adaptability to various election types, from small-scale local elections to national contests, making it a versatile tool for governments and organizations. By enabling remote voting, it expands access, allowing citizens to participate in elections regardless of geographic constraints.

Additionally, the system has the potential to transform electoral engagement by fostering greater transparency, inclusivity, and accountability. With the implementation of this technology, election results can be obtained more swiftly and accurately, while reducing the cost and complexity of traditional voting methods. Overall, the Online Voting System stands as a forward-thinking solution poised to revolutionize electoral processes, promoting a fairer, more accessible, and more efficient democratic system.

Future Work

- 1. Integration of Biometric Authentication: Add biometric authentication methods such as fingerprint or facial recognition to further enhance the security of voter identification.
- 2. Blockchain Integration: Explore the use of blockchain technology to ensure tamper-proof vote storage and enhance the transparency and security of the voting process.
- 3. Mobile Voting App: Develop a dedicated mobile application to enable easy and secure voting from mobile devices, expanding accessibility to a wider audience.
- 4. Multilingual Interface: Implement multilingual support to accommodate voters from diverse linguistic backgrounds, ensuring inclusivity.
- 5. Advanced Encryption Techniques: Upgrade the system's security protocols by incorporating advanced encryption techniques to protect voter data and election integrity.
- 6. Real-Time Voting Analytics: Develop real-time analytics dashboards for monitoring voter participation and election progress, providing administrators with actionable insights during the voting process.
- 7. Offline Voting Support: Introduce an offline voting mechanism for areas with limited internet access, allowing voters to cast their ballots securely.
- 8. Voter Education and Tutorials: Integrate voter education modules and interactive tutorials to help voters understand the process and importance of participating in elections.
- 9. Audit and Reporting Features: Enhance auditing tools for election observers to monitor vote counts, ensure transparency, and detect any irregularities.

CHAPTER 7 REFERENCES

7.1 References

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CHAPTER 8

PLAGIARISM REPORT