Online Voting System

Project Report

Web Technology Lab (21B12CS322)

Project Based Learning

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Department of CSE/IT Jaypee Institute of Information Technology University, Noida

Submitted to:

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ABSTRACT

The word "vote" means to choose from a list, to elect or to determine. The main goal of voting (in a scenario involving the citizens of a given country) is to come up with leaders of the people's choice.

Most countries, Kenya not an exception have problems when it comes to voting. Some of the problems involved include ridging voles during election, insecure or inaccessible polling stations, inadequate polling materials and also inexperienced personnel.

This online voting/polling system seeks to address the above issues. It should be noted that with this system in place, the users, citizens in this case shall be given ample time during the voting period. They shall also be trained on how to vote online before the election time.

INTRODUCTION

"ONLINE VOTING SYSTEM" is an online voting technique. In this system people who have citizenship of Kenya and whose age is above 18 years of age and any sex can give his/her vote online without going to any physical polling station. There is a database which is maintained by the Independent Electoral and Boundaries Commission of Kenya (IEBC) in which all the names of voters with complete information is stored.

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

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

Brief overview of the technology:

Front end: HTML, CSS, JavaScript

- HTML: HTML is used to create and save web document. E.g. Notepad/Notepad++
- 2. CSS: (Cascading Style Sheets) Create attractive Layout
- 3. Bootstrap: responsive design mobile friendly site
- 4. JavaScript: it is a programming language, commonly use with web browsers.

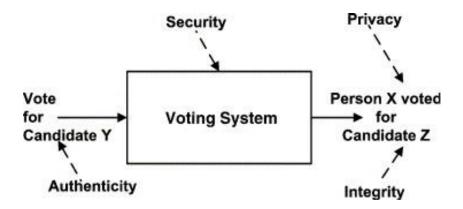
Back end: PHP, MySQL

- 1. PHP: Hypertext Preprocessor (PHP) is a technology that allows software developers to create dynamically generated web pages, in HTML, XML, or other document types, as per client request. PHP is open source software.
- 2. MySQL: MySql is a database, widely used for accessing querying, updating, and managing data in databases.

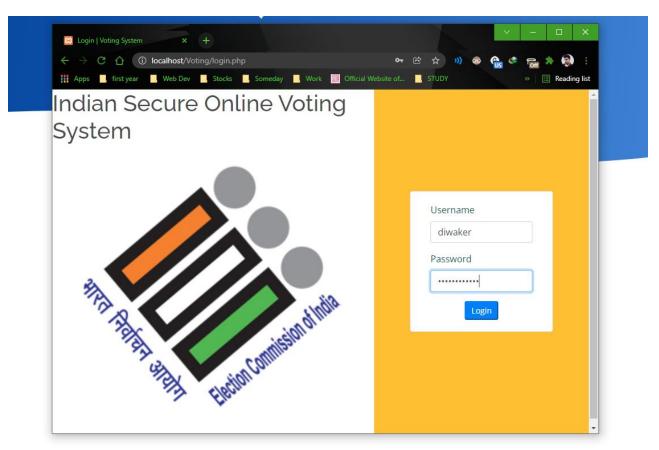
Software Requirements:

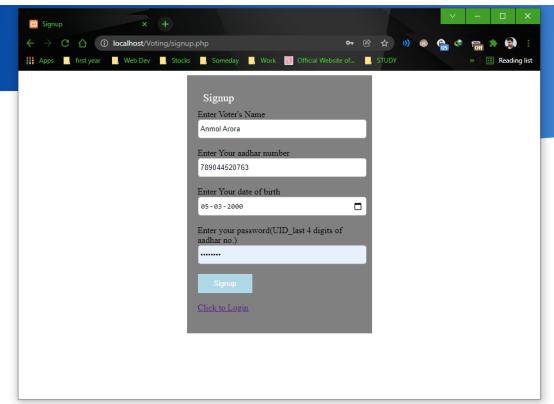
• A Running Device which can connect to webpages

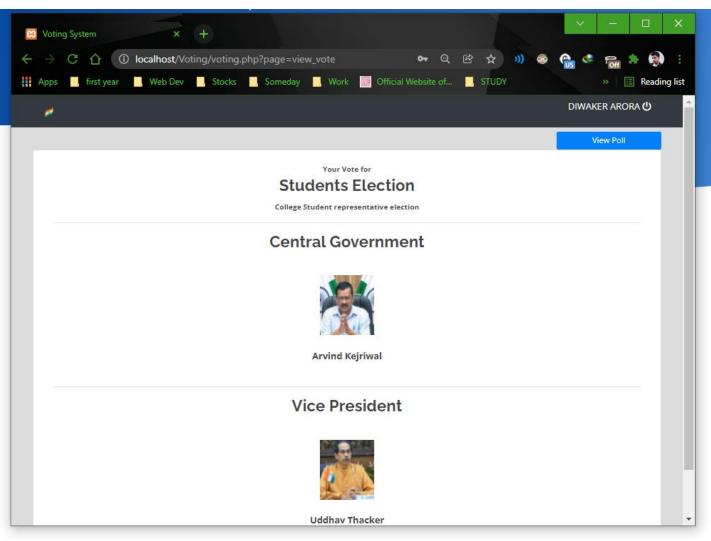
DESIGN AND IMPLEMENTATION

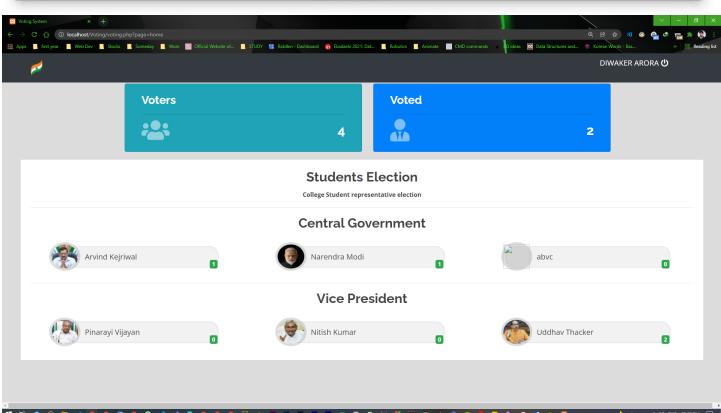


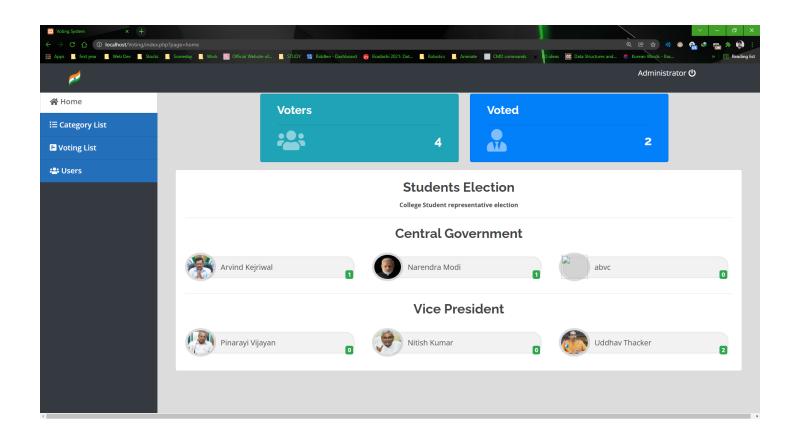
Results

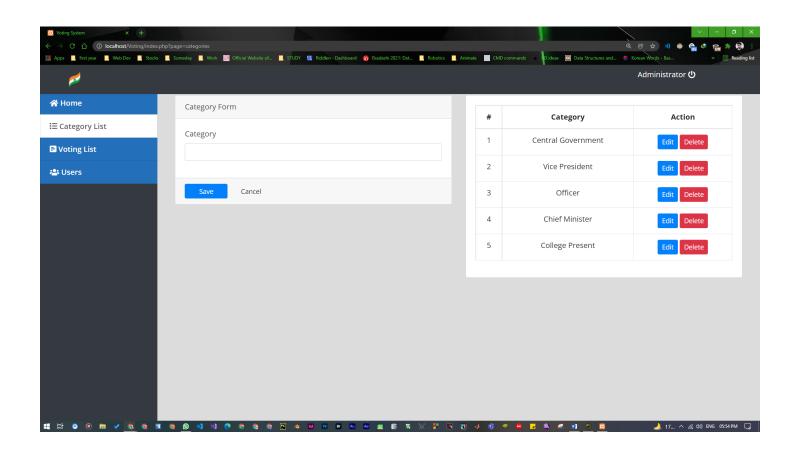


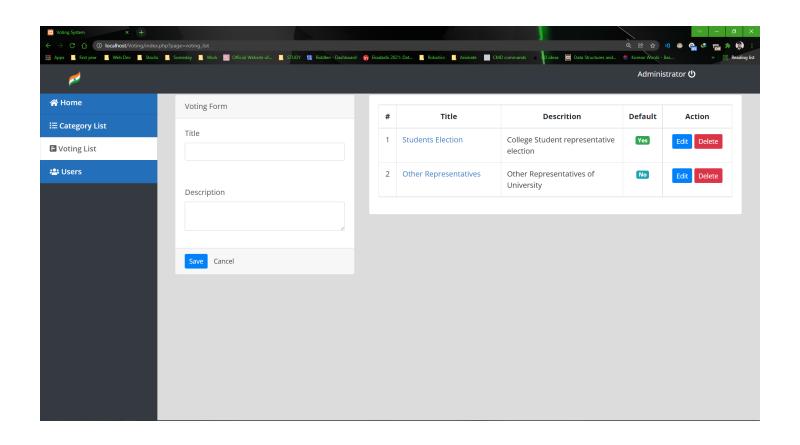


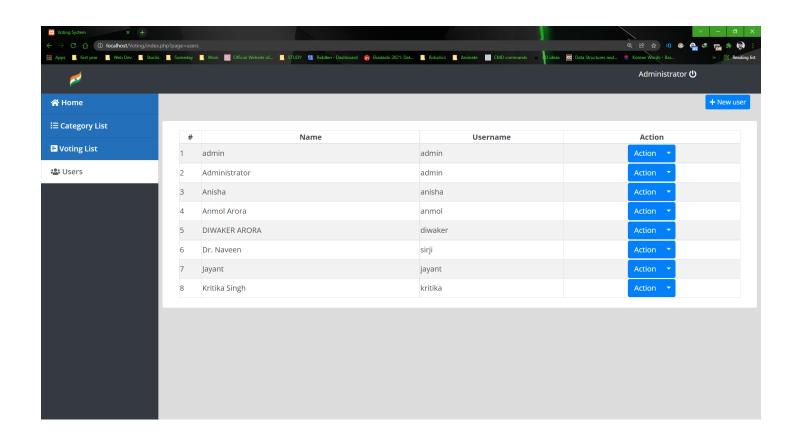




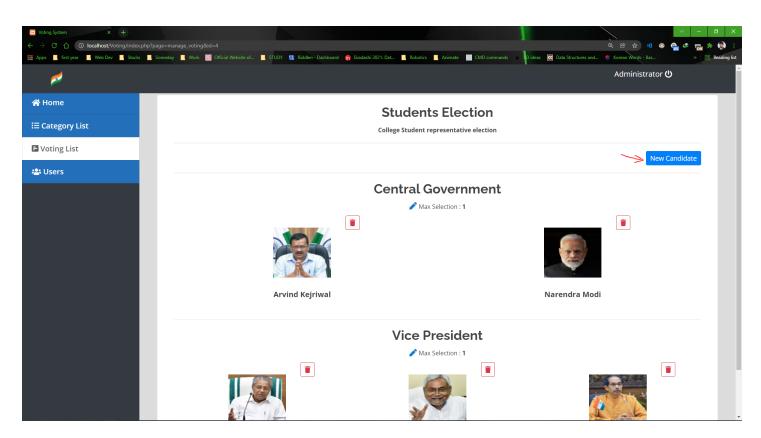


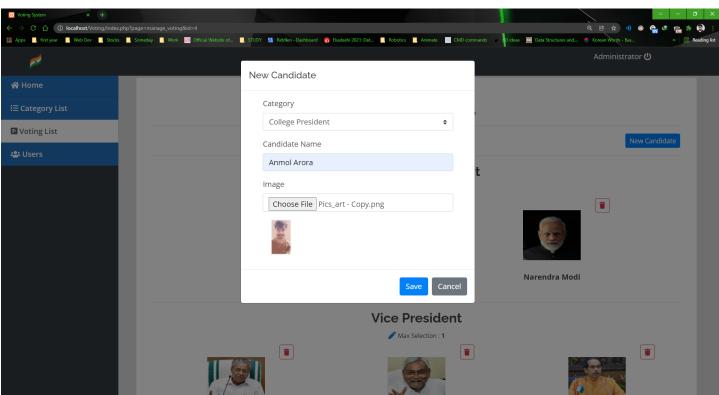




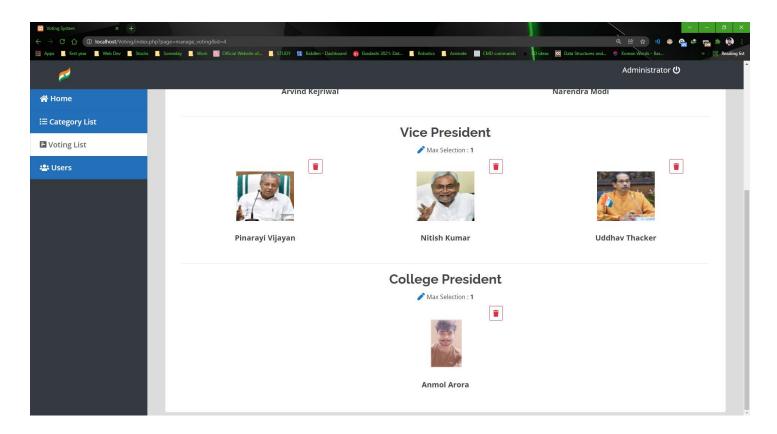


New Candidate:





Data added successfully



Source Code:

Landing page:

```
<style>
    .custom-menu {
        z-index: 1000;
        position: absolute;
        background-color: #ffffff;
        border: 1px solid #0000001c;
        border-radius: 5px;
        padding: 8px;
        min-width: 13vw;
a.custom-menu-list {
    width: 100%;
    display: flex;
    color: #4c4b4b;
    font-weight: 600;
    font-size: 1em;
    padding: 1px 11px;
    span.card-icon {
    position: absolute;
    font-size: 3em;
    bottom: .2em;
    color: #ffffff80;
.file-item{
    cursor: pointer;
a.custom-menu-list:hover,.file-item:hover,.file-item.active {
    background: #80808024;
table th,td{
    /*border-left:1px solid gray;*/
a.custom-menu-list span.icon{
        width:1em;
        margin-right: 5px
.candidate {
    margin: auto;
    width: 23vw;
    padding: 0 10px;
    border-radius: 20px;
    margin-bottom: 1em;
    display: flex;
    border: 3px solid #00000008;
    background: #8080801a;
```

```
.candidate_name {
   margin: 8px;
   margin-left: 3.4em;
   margin-right: 3em;
   width: 100%;
    .img-field {
        display: flex;
        height: 8vh;
       width: 4.3vw;
        padding: .3em;
        background: #80808047;
        border-radius: 50%;
        position: absolute;
       left: -.7em;
        top: -.7em;
    .candidate img {
   height: 100%;
   width: 100%;
   margin: auto;
   border-radius: 50%;
.vote-field {
   position: absolute;
   right: 0;
    bottom: -.4em;
</style>
<div class="containe-fluid">
    <?php include('db_connect.php');</pre>
   $voting = $conn->query("SELECT * FROM voting_list where is_default = 1 ");
   foreach ($voting->fetch_array() as $key => $value) {
        $$key = $value;
    }
   $votes = $conn->query("SELECT * FROM votes where voting_id = $id ");
   $v arr = array();
   while($row=$votes->fetch_assoc()){
        if(!isset($v_arr[$row['voting_opt_id']]))
            $v_arr[$row['voting_opt_id']] = 0;
        $v_arr[$row['voting_opt_id']] += 1;
   $opts = $conn->query("SELECT * FROM voting_opt where voting_id=".$id);
    $opt_arr = array();
        while($row=$opts->fetch_assoc()){
        $opt_arr[$row['category_id']][] = $row;
```

```
<div class="row">
        <div class="col-lg-12">
            <div class="card col-md-4 offset-2 bg-info float-left">
                <div class="card-body text-white">
                    <h4><b>Voters</b></h4>
                    <hr>>
                    <span class="card-icon"><i class="fa fa-users"></i></span>
                    <h3 class="text-right"><b><?php echo $conn->query('SELECT * FROM users
where type = 2 ')->num_rows ?></b></h3>
                </div>
            </div>
            <div class="card col-md-4 offset-2 bg-primary ml-4 float-left">
                <div class="card-body text-white">
                    <h4><b>Voted</b></h4>
                    <hr>>
                    <span class="card-icon"><i class="fa fa-user-tie"></i></span>
                    <h3 class="text-right"><b><?php echo $conn->query('SELECT
distinct(user_id) FROM votes where voting_id = '.$id)->num_rows ?></b></h3>
                </div>
            </div>
        </div>
    </div>
    <div class="row mt-3 ml-3 mr-3">
            <div class="col-lg-12">
            <div class="card">
                <div class="card-body">
                    <div class="text-center">
                        <h3><b><?php echo $title ?></b></h3>
                        <small><b><?php echo $description; ?></b></small>
                    </div>
                    <?php
                    $cats = $conn->query("SELECT * FROM category list where id in (SELECT)
category_id from voting_opt where voting_id = '".$id."' )");
                    while($row = $cats->fetch_assoc()):
                        <hr>>
                        <div class="row mb-4">
                            <div class="col-md-12">
                                     <div class="text-center">
                                         <h3><b><?php echo $row['category'] ?></b></h3>
                                    </div>
                            </div>
                        </div>
                        <div class="row mt-3">
                        <?php foreach ($opt_arr[$row['id']] as $candidate) {</pre>
```

```
<div class="candidate" style="position: relative;">
                                  <div class="img-field">
                                      <img src="assets/img/<?php echo $candidate['image_path']</pre>
?>" alt="">
                                  </div>
                                  <div class="candidate_name"><?php echo $candidate['opt_txt']</pre>
?></div>
                                  <div class="vote-field">
                                      <span class="badge badge-success"><large><b><?php echo</pre>
isset($v_arr[$candidate['id']]) ? number_format($v_arr[$candidate['id']]) : 0
?></b></large></span>
                                  </div>
                             </div>
                         <?php } ?>
                         </div>
                     <?php endwhile; ?>
                 </div>
            </div>
        </div>
        </div>
    </div>
</div>
<script>
</script>
```

Logging In: Index.php

```
</head>
<style>
 body{
        background: #80808045;
</style>
<body>
 <?php include 'topbar.php' ?>
 <?php include 'navbar.php' ?>
 <div class="toast" id="alert_toast" role="alert" aria-live="assertive" aria-atomic="true">
    <div class="toast-body text-white">
   </div>
  </div>
  <main id="view-panel" >
      <?php $page = isset($_GET['page']) ? $_GET['page'] :'home'; ?>
    <?php include $page.'.php' ?>
  </main>
 <div id="preloader"></div>
  <a href="#" class="back-to-top"><i class="icofont-simple-up"></i></a>
<div class="modal fade" id="confirm modal" role='dialog'>
    <div class="modal-dialog modal-md" role="document">
      <div class="modal-content">
        <div class="modal-header">
        <h5 class="modal-title">Confirmation</h5>
     </div>
     <div class="modal-body">
       <div id="delete content"></div>
      </div>
      <div class="modal-footer">
        <button type="button" class="btn btn-primary" id='confirm'</pre>
onclick="">Continue</button>
        <button type="button" class="btn btn-secondary" data-dismiss="modal">Close</button>
     </div>
      </div>
   </div>
  </div>
  <div class="modal fade" id="uni modal" role='dialog'>
    <div class="modal-dialog modal-md" role="document">
     <div class="modal-content">
        <div class="modal-header">
        <h5 class="modal-title"></h5>
      </div>
      <div class="modal-body">
      </div>
      <div class="modal-footer">
```

```
<button type="button" class="btn btn-primary" id='submit' onclick="$('#uni_modal</pre>
form').submit()">Save</button>
        <button type="button" class="btn btn-secondary" data-dismiss="modal">Cancel</button>
      </div>
      </div>
    </div>
  </div>
</body>
<script>
   window.start load = function(){
    $('body').prepend('<di id="preloader2"></di>')
  window.end load = function(){
    $('#preloader2').fadeOut('fast', function() {
        $(this).remove();
      })
  window.uni_modal = function($title = '' , $url=''){
    start_load()
    $.ajax({
        url:$url,
        error:err=>{
            console.log()
            alert("An error occured")
        },
        success:function(resp){
            if(resp){
                $('#uni_modal .modal-title').html($title)
                $('#uni modal .modal-body').html(resp)
                $('#uni_modal').modal('show')
                end load()
    })
window._conf = function($msg='',$func='',$params = []){
     $('#confirm_modal #confirm').attr('onclick',$func+"("+$params.join(',')+")")
     $('#confirm_modal .modal-body').html($msg)
     $('#confirm modal').modal('show')
   window.alert_toast= function($msg = 'TEST',$bg = 'success'){
      $('#alert_toast').removeClass('bg-success')
      $('#alert toast').removeClass('bg-danger')
      $('#alert_toast').removeClass('bg-info')
      $('#alert_toast').removeClass('bg-warning')
    if($bg == 'success')
      $('#alert_toast').addClass('bg-success')
    if($bg == 'danger')
```

```
$('#alert_toast').addClass('bg-danger')
if($bg == 'info')
    $('#alert_toast').addClass('bg-info')
if($bg == 'warning')
    $('#alert_toast').addClass('bg-warning')
    $('#alert_toast .toast-body').html($msg)
    $('#alert_toast').toast({delay:3000}).toast('show');
}
$(document).ready(function(){
    $('#preloader').fadeOut('fast', function() {
        $(this).remove();
    })
})
</script>
</html>
```

Login.php

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="utf-8">
  <meta content="width=device-width, initial-scale=1.0" name="viewport">
  <title>Login | Voting System</title>
<?php include('./header.php'); ?>
<?php
session_start();
if(isset($_SESSION['login_id']))
header("location:index.php?page=home");
</head>
<style>
    body{
        width: 100%;
        height: calc(100%);
        /*background: #007bff;*/
    main#main{
        width:100%;
        height: calc(100%);
        background:white;
    #login-right{
        position: absolute;
        right:0;
```

```
width:40%;
        height: calc(100%);
        background:white;
        display: flex;
        align-items: center;
    #login-left{
        position: absolute;
        left:0;
       width:60%;
        height: calc(100%);
        background:white;
        display: flex;
        align-items: center;
    #login-right .card{
       margin: auto
    .logo {
   margin: auto;
   font-size: 8rem;
   /*background: #00000061;*/
   /*padding: .5em 0.8em;*/
    /*border-radius: 50% 50%;*/
    color: #000000b3;
</style>
<body>
 <main id="main" class=" alert-info">
        <div id="login-left">
            <div class="logo">
                <h1>Indian Secure Online Voting System</h1>
                <img src="logo.png" alt="..." width="100%">
            </div>
        </div>
        <div id="login-right" class="bg-warning">
            <div class="card col-md-8">
                <div class="card-body">
                    <form id="login-form" >
                        <div class="form-group">
                            <label for="username" class="control-label">Username</label>
                            <input type="text" id="username" name="username" class="form-</pre>
control">
                        </div>
                        <div class="form-group">
                            <label for="password" class="control-label">Password</label>
```

```
<input type="password" id="password" name="password" class="form-</pre>
control">
                         </div>
                         <center><button class="btn-sm btn-block btn-wave col-md-4 btn-</pre>
primary">Login</button></center>
                </div>
            </div>
        </div>
  </main>
  <a href="#" class="back-to-top"><i class="icofont-simple-up"></i></a>
</body>
<script>
    $('#login-form').submit(function(e){
        e.preventDefault()
        $('#login-form button[type="button"]').attr('disabled',true).html('Logging in...');
        if($(this).find('.alert-danger').length > 0 )
            $(this).find('.alert-danger').remove();
        $.ajax({
            url:'ajax.php?action=login',
            method:'POST',
            data:$(this).serialize(),
            error:err=>{
                console.log(err)
        $('#login-form button[type="button"]').removeAttr('disabled').html('Login');
            },
            success:function(resp){
                if(resp == 1){
                    location.href ='index.php?page=home';
                }else if(resp == 2){
                    location.href ='voting.php';
                }else{
                    $('#login-form').prepend('<div class="alert alert-danger">Username or
password is incorrect.</div>')
                    $('#login-form
button[type="button"]').removeAttr('disabled').html('Login');
            }
        })
    })
</script>
</html>
```

```
function check_login($conn)
{
    if(isset($_SESSION['aadhar_id']))
    {
        $id = $_SESSION['aadhar_id'];
        $query = "select * from voters where aadhar_id = '$id' limit 1";

        $result = mysqli_query($conn,$query);
        if($result && mysqli_num_rows($result) > 0)
        {
            $user_data = mysqli_fetch_assoc($result);
            return $user_data;
        }
    }
}
//redirect to login
header("Location: login.php");
die;
}
```

Connecting DataBase:

```
<?php
$conn= new mysqli('localhost','root','','voting_db')or die("Could not connect to
mysql".mysqli_error($con));</pre>
```

Header file for importing

```
<link href="assets/vendor/bootstrap/css/bootstrap.min.css" rel="stylesheet">
  <link href="assets/vendor/icofont/icofont.min.css" rel="stylesheet">
  <link href="assets/vendor/boxicons/css/boxicons.min.css" rel="stylesheet">
  <link href="assets/vendor/venobox/venobox.css" rel="stylesheet">
  <link href="assets/vendor/animate.css/animate.min.css" rel="stylesheet">
  <link href="assets/vendor/remixicon/remixicon.css" rel="stylesheet">
  <link href="assets/vendor/owl.carousel/assets/owl.carousel.min.css" rel="stylesheet">
  <link href="assets/vendor/bootstrap-datepicker/css/bootstrap-datepicker.min.css"</pre>
rel="stylesheet<u>"></u>
  <link href="assets/DataTables/datatables.min.css" rel="stylesheet">
  <!-- Template Main CSS File -->
  <link href="assets/css/style.css" rel="stylesheet">
  <link type="text/css" rel="stylesheet" href="assets/css/jquery-te-1.4.0.css">
  <script src="assets/vendor/jquery/jquery.min.js"></script>
  <script src="assets/DataTables/datatables.min.js"></script>
  <script src="assets/vendor/bootstrap/js/bootstrap.bundle.min.js"></script></script></script>
  <script src="assets/vendor/jquery.easing/jquery.easing.min.js"></script>
  <script src="assets/vendor/php-email-form/validate.js"></script>
  <script src="assets/vendor/venobox/venobox.min.js"></script>
  <script src="assets/vendor/waypoints/jquery.waypoints.min.js"></script>
  <script src="assets/vendor/counterup/counterup.min.js"></script>
  <script src="assets/vendor/owl.carousel/owl.carousel.min.js"></script></script></script>
  <script src="assets/vendor/bootstrap-datepicker/js/bootstrap-datepicker.min.js"></script>
    <script type="text/javascript" src="assets/font-awesome/js/all.min.js"></script>
  <script type="text/javascript" src="assets/js/jquery-te-1.4.0.min.js" charset="utf-</pre>
8"></script>
```

Sign Up:

```
<!php
session_start();

include("db_connect.php");
include("functions.php");

if($_SERVER['REQUEST_METHOD'] == "POST")
{
    //something was posted

    $password = $_POST['password'];
    $aadhar_id=$_POST['aadhar_id'];
    $dob=$_POST['dob'];
    $name=$_POST['name'];

if(!empty($password) && !empty($aadhar_id) && !empty($name))
</pre>
```

```
//save to database
            //$user_id = random_num(20);
            $query = "insert into voters (name,dob,aadhar_id,password) values
('$name','$dob','$aadhar_id','$password')";
            mysqli_query($conn, $query);
            header("Location: login.php");
        }else
            echo "Please enter some valid information!";
    }
<!DOCTYPE html>
<html>
    <title>Signup</title>
</head>
<body>
    <style type="text/css">
   #text{
        height: 25px;
        border-radius: 5px;
        padding: 4px;
        border: solid thin #aaa;
       width: 100%;
   #button{
        padding: 10px;
       width: 100px;
        color: white;
        background-color: lightblue;
        border: none;
    #box{
        background-color: grey;
        margin: auto;
```

```
width: 300px;
       padding: 20px;
   </style>
   <div id="box">
       <form method="post">
           <div style="font-size: 20px;margin: 10px;color: white;">Signup</div>
           <label>Enter Voter's Name</label><br>
           <input id="text" type="text" name="name"><br><br>
           <label>Enter Your aadhar number</label><br>>
           <input id="text" type="text" name="aadhar id"><br><br>
           <label>Enter Your date of birth</label><br>
           <input id="text" type="date" name="dob"><br><br>
           <label>Enter your password(UID_last 4 digits of aadhar no.)</label><br>
           <input id="text" type="password" name="password"><br><br>
            <input id="button" type="submit" value="Signup"><br><br>
            <a href="login.php">Click to Login</a><br><br>
       </form>
   </div>
</body>
</html>
```

Users database:

```
#
                 Name
                 Username
                 Action
              </thead>
          <?php
                 include 'db_connect.php';
                 $users = $conn->query("SELECT * FROM users order by name asc");
                 while($row= $users->fetch_assoc()):
              <?php echo $i++ ?>
                 <?php echo $row['name'] ?>
                 <?php echo $row['username'] ?>
                 <center>
                           <div class="btn-group">
                             <button type="button" class="btn btn-</pre>
primary">Action</button>
                             <button type="button" class="btn btn-primary dropdown-</pre>
toggle dropdown-toggle-split" data-toggle="dropdown" aria-haspopup="true" aria-
expanded="false">
                               <span class="sr-only">Toggle Dropdown</span>
                             </button>
                             <div class="dropdown-menu">
                               <a class="dropdown-item edit user"</pre>
href="javascript:void(0)" data-id = '<?php echo $row['id'] ?>'>Edit</a>
                               <div class="dropdown-divider"></div>
                               <a class="dropdown-item delete_user"</pre>
href="javascript:void(0)" data-id = '<?php echo $row['id'] ?>'>Delete</a>
                             </div>
                            </div>
                            </center>
                 <?php endwhile; ?>
          </div>
       </div>
   </div>
```

```
</div>
<script>
$('#new_user').click(function(){
    uni_modal('New User', 'manage_user.php')
})
$('.edit_user').click(function(){
    uni_modal('Edit User', 'manage_user.php?id='+$(this).attr('data-id'))
})
</script>
```

Voting database reporting

```
<!DOCTYPE html>
<html lang="en">
  <meta charset="utf-8">
  <meta content="width=device-width, initial-scale=1.0" name="viewport">
  <title>Voting System</title>
<?php
  session_start();
 if(!isset($_SESSION['login_id']))
    header('location:login.php');
include('./header.php');
// include('./auth.php');
<style>
  body{
        background: #80808045;
  main{
    margin-left: unset !important;
    width: calc(100%) !important
</style>
<body>
  <?php include 'topbar.php' ?>
  <div class="toast" id="alert_toast" role="alert" aria-live="assertive" aria-atomic="true">
    <div class="toast-body text-white">
    </div>
```

```
</div>
  <main id="view-panel" >
      <?php $page = isset($_GET['page']) ? $_GET['page'] :'vote_sheet'; ?>
    <?php include $page.'.php' ?>
  <div id="preloader"></div>
  <a href="#" class="back-to-top"><i class="icofont-simple-up"></i></a>
<div class="modal fade" id="confirm_modal" role='dialog'>
    <div class="modal-dialog modal-md" role="document">
      <div class="modal-content">
        <div class="modal-header">
        <h5 class="modal-title">Confirmation</h5>
      </div>
      <div class="modal-body">
        <div id="delete content"></div>
      </div>
      <div class="modal-footer">
        <button type="button" class="btn btn-primary" id='confirm'</pre>
onclick="">Continue</button>
        <button type="button" class="btn btn-secondary" data-dismiss="modal">Close</button>
      </div>
      </div>
    </div>
  </div>
  <div class="modal fade" id="uni_modal" role='dialog'>
    <div class="modal-dialog modal-md" role="document">
      <div class="modal-content">
        <div class="modal-header">
        <h5 class="modal-title"></h5>
      </div>
      <div class="modal-body">
      </div>
      <div class="modal-footer">
        <button type="button" class="btn btn-primary" id='submit' onclick="$('#uni_modal</pre>
form').submit()">Save</button>
        <button type="button" class="btn btn-secondary" data-dismiss="modal">Cancel</button>
      </div>
      </div>
    </div>
  </div>
</body>
<script>
  window.start load = function(){
    $('body').prepend('<di id="preloader2"></di>')
  window.end load = function(){
```

```
$('#preloader2').fadeOut('fast', function() {
        $(this).remove();
      })
  window.uni_modal = function($title = '' , $url=''){
    start_load()
    $.ajax({
        url:$url,
        error:err=>{
            console.log()
            alert("An error occured")
        },
        success:function(resp){
            if(resp){
                $('#uni_modal .modal-title').html($title)
                $('#uni_modal .modal-body').html(resp)
                $('#uni modal').modal('show')
                end_load()
    })
window._conf = function($msg='',$func='',$params = []){
     $('#confirm_modal #confirm').attr('onclick',$func+"("+$params.join(',')+")")
     $('#confirm_modal .modal-body').html($msg)
     $('#confirm_modal').modal('show')
  }
   window.alert_toast= function($msg = 'TEST',$bg = 'success'){
      $('#alert toast').removeClass('bg-success')
      $('#alert_toast').removeClass('bg-danger')
      $('#alert_toast').removeClass('bg-info')
      $('#alert_toast').removeClass('bg-warning')
    if($bg == 'success')
      $('#alert_toast').addClass('bg-success')
    if($bg == 'danger')
      $('#alert_toast').addClass('bg-danger')
    if($bg == 'info')
      $('#alert_toast').addClass('bg-info')
    if($bg == 'warning')
      $('#alert_toast').addClass('bg-warning')
    $('#alert_toast .toast-body').html($msg)
    $('#alert_toast').toast({delay:3000}).toast('show');
  $(document).ready(function(){
    $('#preloader').fadeOut('fast', function() {
        $(this).remove();
      })
```



CONCLUSION

Online voting system is developed by using PHP as front end and My SQL for database in back end to computerize the process for check in and out system.

The project covers only the basic required to sum up, developing a information system on "online voting system" for was a matter of essence

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