DR. BABASAHEB AMBEDKAR MARATHWADA

UNIVERSITY, AURANGABAD

Department of Computer Science and Information Technology

(2022-2023)

MINI PROJECT ON

"Online Voting System"

Master of Science (Information Technology) 2nd year

GUIDANCE BY

Dr. Sonali B. Kulkarni

SUBMITTED BY

Miss. Manasi Manohar Sapkale

Department of Computer Science and Information Technology,

Aurangabad

CERTIFICATE

This is to certify that the project report entitled **"Online Voting System"** has been submitted by **Miss. Manasi Manohar Sapkale.** student of M.SC (INFORMATION TECHNOLOGY) -2nd year (IIIrd SEM). Department of Computer Science and Information Technology, Aurangabad.

In the partial fulfilment for the requirement of award Master of Information Technology degree of Dr. Babasaheb Ambedkar Marathwada University, Aurangabad in the academic year 2022-2023 is a record of student own study carried under my supervision and guidance.

This report has not been submitted to any other university or institution for the award of the any degree.

Seat Number GTB-201027

Dr. Sonali B. Kulkarni **Prof. Sachin N. Deshmukh**

(Assistant professor) **(HOD)**

Examiner

ACKNOWLEDGEMENT

The success of project is an outcome of sincere efforts, channelled in right direction, efficient supervision and most valuable technical assistance. This project wouldn't have been completed without the help express by my special gratitude to**, Prof. Sachin Deshmukh Sir** head of department of Computer Science and Information Technology and **Dr. Sonali B. Kulkarni Ma'am** project Guide.

We would also like to acknowledge all the staff for providing a helping hand to us in times of queries & problems. The Project is a result of the efforts of all the peoples who are associated with the Project directly or indirectly, who helped us to Successfully complete the Project within the specified Time Frame.

Courage & Support, the Project Development would have been Futile. It was only their buildings Support & Morale us in attaining the Successful completion of the Project.

We would like to Thanks our colleagues for keeping our Sprits High while preparing the Project. Because of their Diligent & Hard Work, we wouldn't have been able to complete the Project within the given Time Frame.

We are Thankful to each & every people involved with us in this case study, their Encouragement & Support enabled the Project to Materialize & Contributed it to its success. We would like to express our Appreciation to all the people who have contributed to the Successful completion of the Project.

With all Respects & Gratitude, we would like to Thanks to all people, who have helped in the Development of the Project

Thank You Very Much….

Miss. Manasi Sapkale

INDEX

1.1 INTRODUCTION

Online Voting is a web-based voting system that will help you manage your elections easily and securely. This voting system can be used for casting votes during the elections held in colleges, etc. In this system the voter does not have to go to the polling booth to cast their vote. They can use their personal computer to cast their votes. There is a database which is maintained in which all the name of the voters with their complete information is stored.

The System Administrator registers the voters by simply filling a registration form to register the voters. After registration, the voter is assigned a secret voter ID with which he/she can use to login to the system and cast his/her vote. If invalid/wrong details are submitted, then the person is not registered to vote. After the user successfully registers themselves, a link is sent on their respective E-mail IDs. The link is a key for the activation of the account of the user. The account is activated only after the user clicks on that link. The site will be activated only on the day of voting. Once the user logs in, they will be provided with a One Time Password (OTP) which has to be entered by the user before casting his/her vote. The password will be destroyed after casting of their respective vote. A receipt of the vote will be sent to the user on their respective E-mail IDs. The advantage of online voting is that the voters have the choice of voting at their own free time and there is reduced congestion. It also minimizes on errors of vote counting. The individual votes are submitted in a database which can be queried to find out who of the aspirants for a given post has the highest number of votes.

➢ MODULES:

- Admin Module
- Add Elections
- Add Candidate.
- View Voter and approve voters
- View the Vote and results
- Voter Module
- Voter Registration
- View Candidate details
- Vote

➢ MODULES DESCSRIPTION:

- **Admin Module:**

  This module has to maintain the information of the candidate and shows the details of the candidate. And also maintains the records of the party and the candidate.

- **Add Elections:**

  This module the admin can able to create new elections. The elections will be set with the date and so after that date the voters cannot able to vote to that particular election.

- **Add Candidate:**

  This module the admin can able to add the candidates who are going to constitute in the particular election. First, they need to select the name of the election, then add candidate name, Party name, Address, Contact number, Photo etc. Once these added, then the voter can able to see the candidate details in their login.

-

- **View voter and approve Voters:**

  In this sub module we can view the entire details of the voters coming from the users who are registered. The admin can able to verify and approve or reject it accordingly. Once the admin approves it, then the user can login

- **View the vote and results:**

  In this sub module we can get the results of the election i.e who had won the election with how many votes.

- **Voter Module:**

  This allows user to vote for the respective candidate and allows the user to view the candidate details, allows user to view the details of the respective person he voted for.

- **Voter Registration:**

  In this sub module the voter registers themselves by add the details such as Name, Date of birth, email id, gender, Phone Number, address, password. Once the voter registers, then the admin should view it and approve it, then only the voter can able to vote in the election. The voter can only login if the admin approves it or else the voter cannot login if the admin rejects.

- **View Candidate details:**

  In this sub module we can view the details of the candidates who constitute in the election with their photo, party details etc.

- **Vote:**

  In this sub module we can register our vote. Once the user has registered his vote then again, he is not allowed to vote again i.e., only one user can vote only at one time

1.2 PROBLEM STATEMENT:

online voting systems are rapidly overlapping the traditional paper-based voting. In traditional voting there are number of factors that make rigging in whole electoral process such as counting of votes, fake voters and involvement of outside sources and also other problems like time consumption, cost budget problems etc. So, the purpose of this proposal is to investigate how to model an authentic reliable and upright online voting system so that a voter is submitted a vote in secure manner while maintaining the time, verification, budget and also the security of the entire system.

1.3 BENEFITS:

- Increased Efficiency:

  One of the most significant advantages of online voting systems is incredible efficiency. With traditional paper-based voting, there are a lot of steps involved, from printing ballots to counting votes by hand. You can avoid all of that with online voting.

- Improved Accuracy:

  Another advantage of online voting systems is that they tend to be more accurate than traditional paper-based systems. On the other hand, there's always the potential for human error with paper ballots, whether it's miscounting votes or mixing up ballots.

- Electronic voting is private and secure:

  Private — our third-party service provides a layer of separation between the voting process and individuals involved
  Secure — no unsecured paper ballots
  Authentication — each vote is captured with a date and timestamp along with the voter's internet address

2. LITERATURE REVIEW:

To make the voting process very easy and efficient wireless and web technologies are used. The online- voting system has the possibility of secure, easy and safe way to capture and count the votes in the election.

The author in [1]" online voting system based on Aadhaar id" uses Aadhaar id as key of authentication, system is efficient in terms of time and provides security the system is great improvement over traditional system but the main problem resides in this system is that of authentication, the authentication technique used is not that efficient as
biometric is not used.

The paper [2]" Secure Authentication for Online Voting System" presents non traceability and integrity of the votes, smart card has been used to avoid multiple votes casted by users, biometric is being used for authenticating voters. The author has introduced smart card for biometric identification and voter id card to be used at the time of casting vote. They are using smart card and voter id card at the time of election which is not feasible as anything can happen to those cards thus relying completely upon cards in not a good idea. And the use of various cards makes the system costly now each and every voter need to have these additional cards. Also, it may take reasonable amount of time to generate so many cards. All voting system generated priory though have met various features, which a voting system may consists but the main problem one could find in this system is that little "online" word, despite all techniques they have used to make system robust there is always a chance of malpractice when your system is online

In [3]" online voting system powered by biometric security "the author has used personal identification number, thumb impression and secret key altogether for authentication of the voter. Techniques such as cover image creation, secret key expansion have been used for securely sending data to server and then further authenticating voters. This system is quite robust; it takes care of authentication as well as security of voter's data stored in server. The main problem with such systems is that despite using various security techniques they won't be able to manage such a huge amount of data that they may encounter during election periods their system is online and they may face congestion during casting votes

3. REQUIREMENT SPECIFICATION:

- **Software**

  Operating : windows 11

  Languages : PHP, BOOTSTRAP, CSS

  Database : MySQL server, xammp server

- **Hardware**

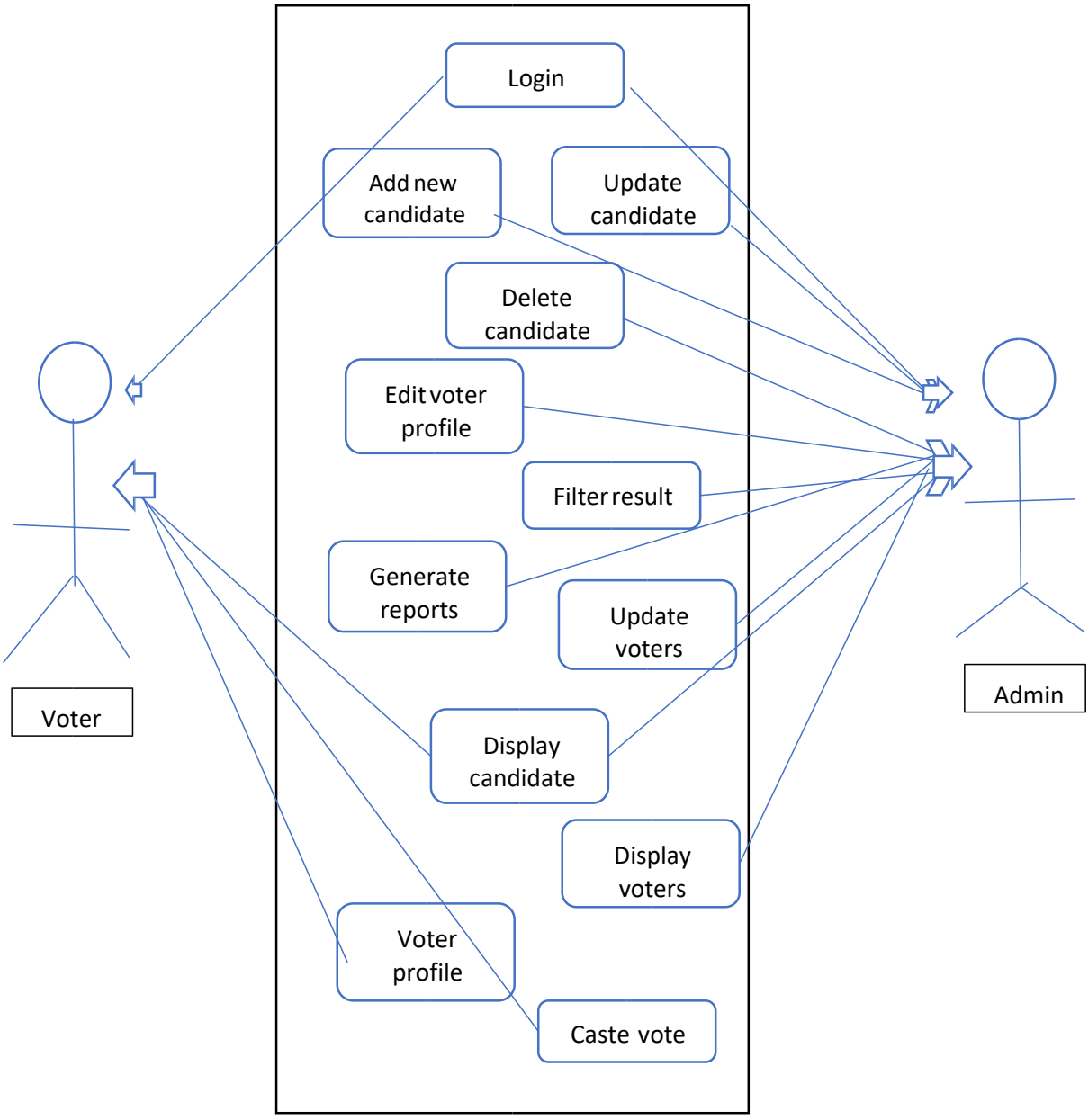
  Processor : intel(R) Core (TM) i5-10210U CPU @ 1.60GHz 1.61 GHz

  Memory : 512 MB

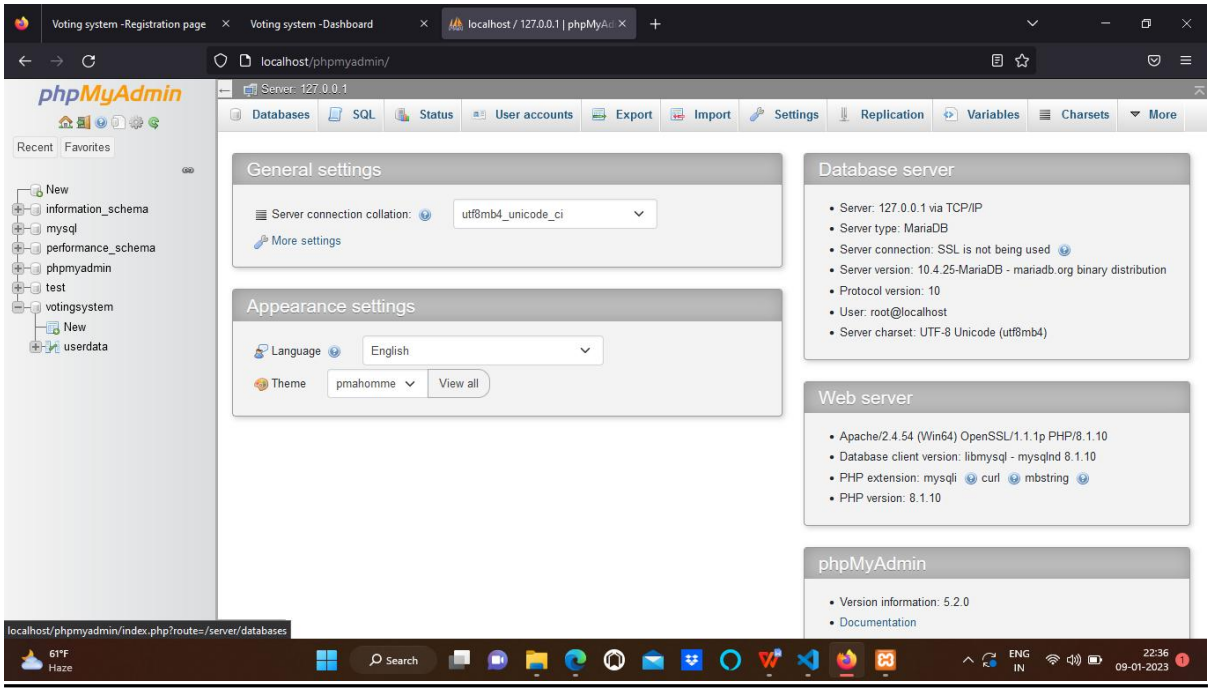
  Keyboard : standard 102 keys

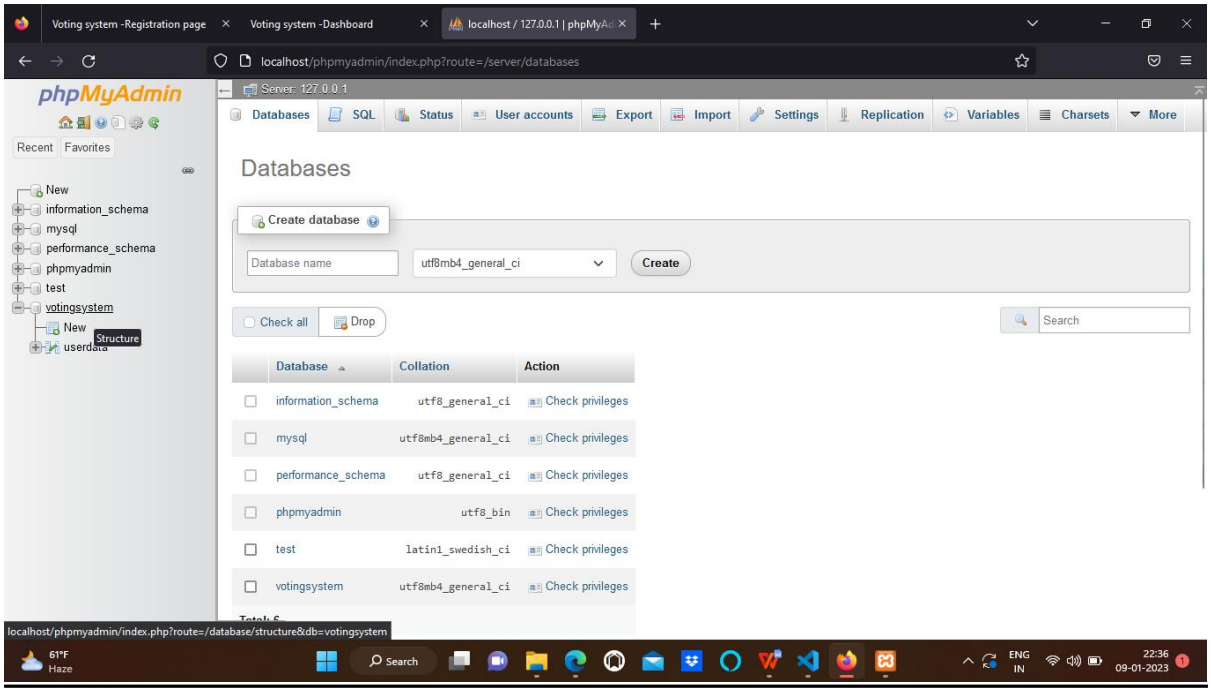
  Mouse : 3 buttons

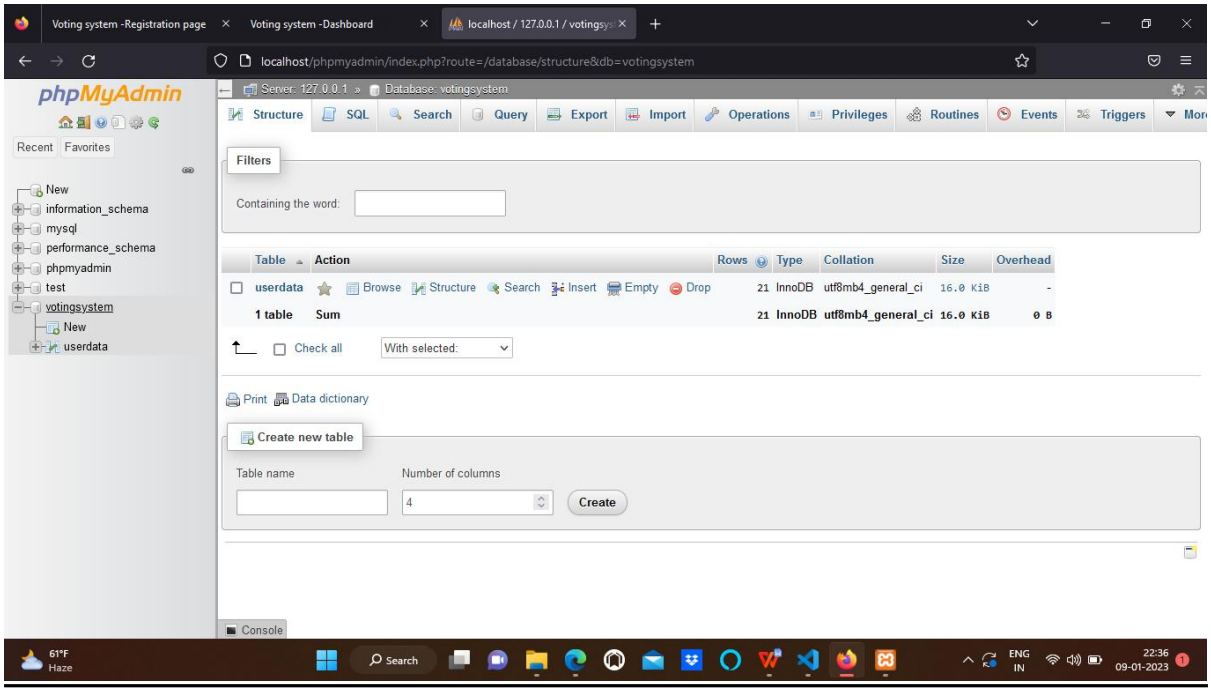
4. DATA FLOW DIAGRAM:

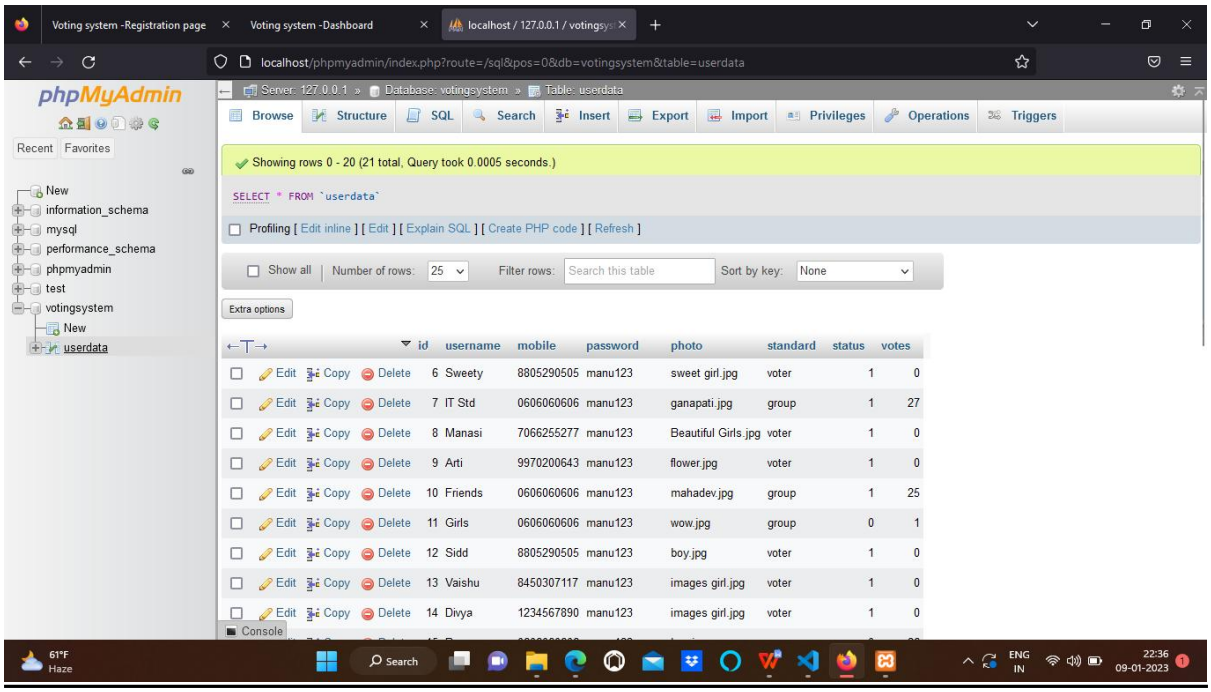


5. DATABASE SCREENSHOT:



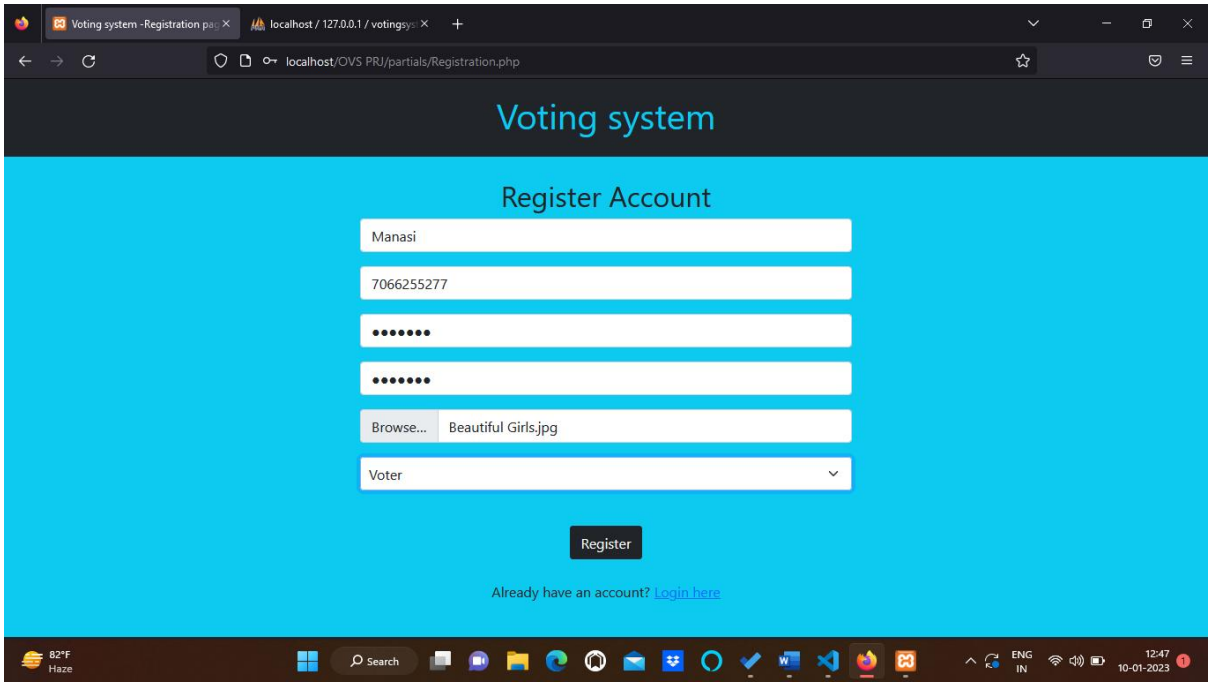


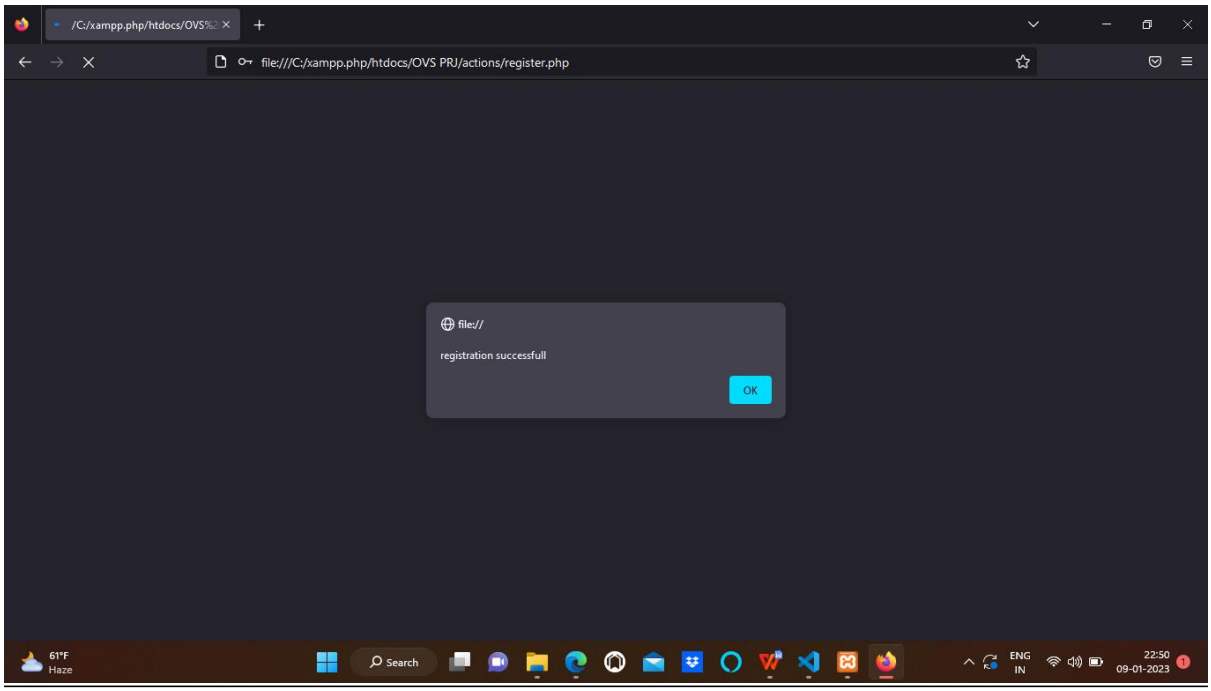

Voting system -Registration page
Voting system -Dashboard
localhost / 127.0.0.1 / votingsy
localhost/phpmyadmin/index.php?route=/database/structure&db=votingsystem
phpMyAdmin
Recent
Favorites
New
information_schema
mysql
performance_schema
phpmyadmin
test
votingsystem
New
userdata
Server: 127.0.0.1 » Database: votingsystem
Structure
SQL
Search
Query
Export
Import
Operations
Privileges
Routines
Events
Triggers
Filters
Containing the word:
Table
Action
Rows
Type
Collation
Size
Overhead
userdata
Browse
Structure
Search
Insert
Empty
Drop
21
InnoDB
utf8mb4_general_ci
16.0 KiB
1 table
Sum
21
InnoDB
utf8mb4_general_ci
16.0 KiB
0 B
Check all
With selected:
Print
Data dictionary
Create new table
Table name
Number of columns
4
Create
Console
61°F
Haze
Search
ENG
IN
22:36
09-01-2023


Voting system -Registration page
Voting system -Dashboard
localhost / 127.0.0.1 / votingsy
localhost/phpmyadmin/index.php?route=/sql&pos=0&db=votingsystem&table=userdata
phpMyAdmin
Recent
Favorites
New
information_schema
mysql
performance_schema
phpmyadmin
test
votingsystem
New
userdata
Server: 127.0.0.1 » Database: votingsystem » Table: userdata
Browse
Structure
SQL
Search
Insert
Export
Import
Privileges
Operations
Triggers
Showing rows 0 - 20 (21 total, Query took 0.0005 seconds.)
SELECT * FROM `userdata`
Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]
Show all
Number of rows: 25
Filter rows: Search this table
Sort by key: None
Extra options
id
username
mobile
password
photo
standard
status
votes
Edit Copy Delete 6 Sweety 8805290505 manu123 sweet girl.jpg voter 1 0
Edit Copy Delete 7 IT Std 0606060606 manu123 ganapati.jpg group 1 27
Edit Copy Delete 8 Manasi 7066255277 manu123 Beautiful Girls.jpg voter 1 0
Edit Copy Delete 9 Arti 9970200643 manu123 flower.jpg voter 1 0
Edit Copy Delete 10 Friends 0606060606 manu123 mahadev.jpg group 1 25
Edit Copy Delete 11 Girls 0606060606 manu123 wow.jpg group 0 1
Edit Copy Delete 12 Sidd 8805290505 manu123 boy.jpg voter 1 0
Edit Copy Delete 13 Vaishu 8450307117 manu123 images girl.jpg voter 1 0
Edit Copy Delete 14 Divya 1234567890 manu123 images girl.jpg voter 1 0
Console
61°F
Haze
Search
ENG
IN
22:36
09-01-2023

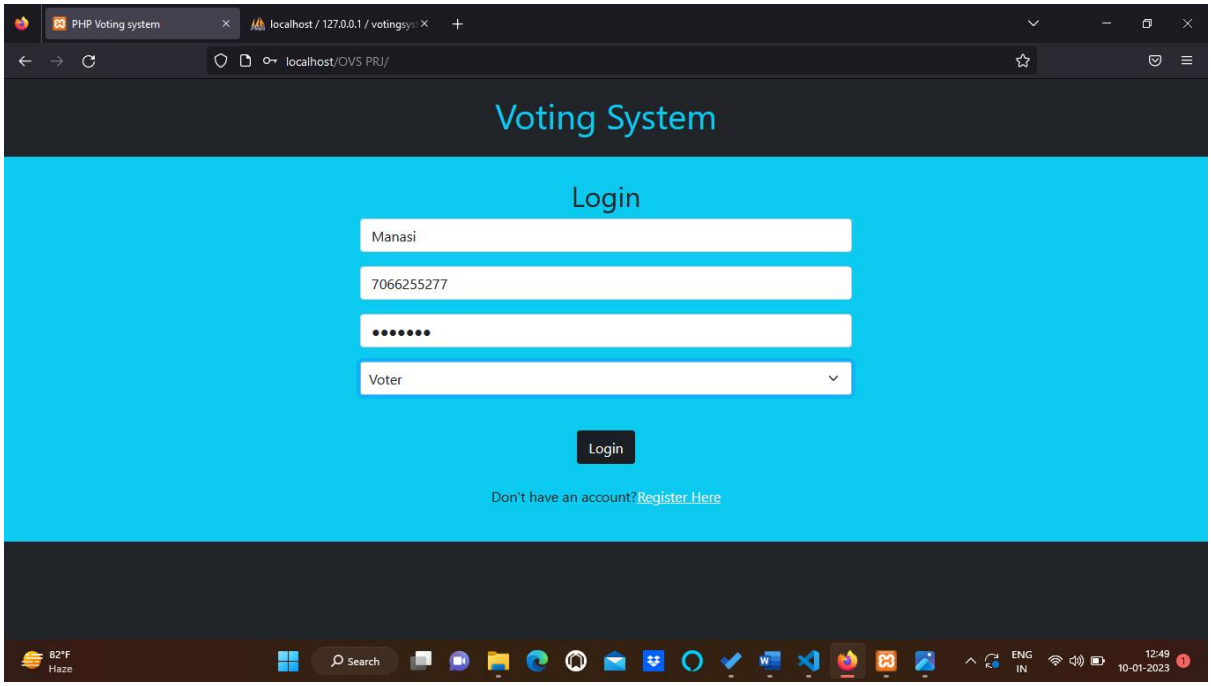
6. WEBSITE SAMPLE SCREENSHOTS:

- **Registration page**:

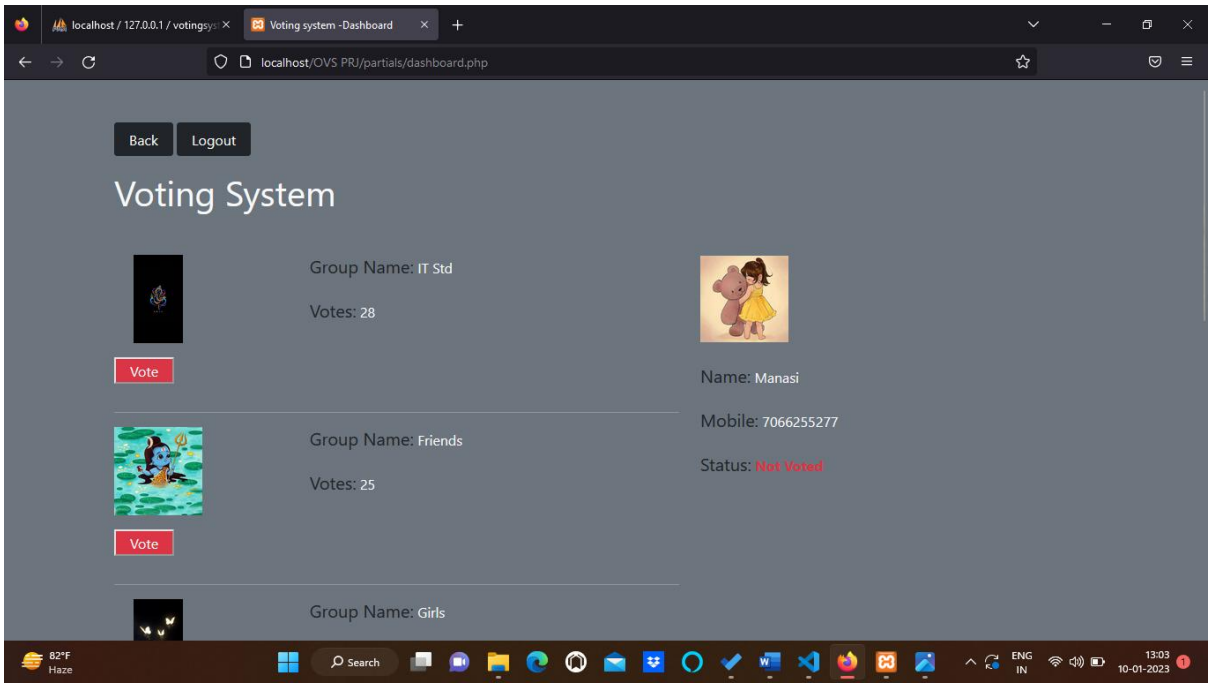


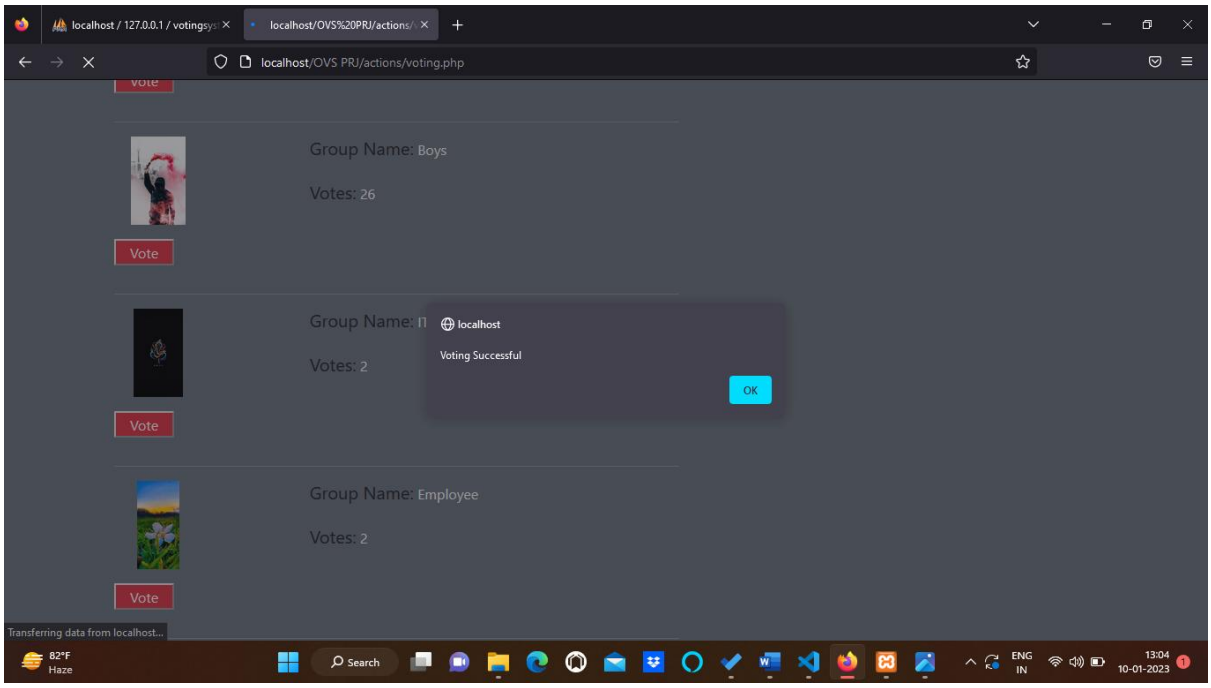


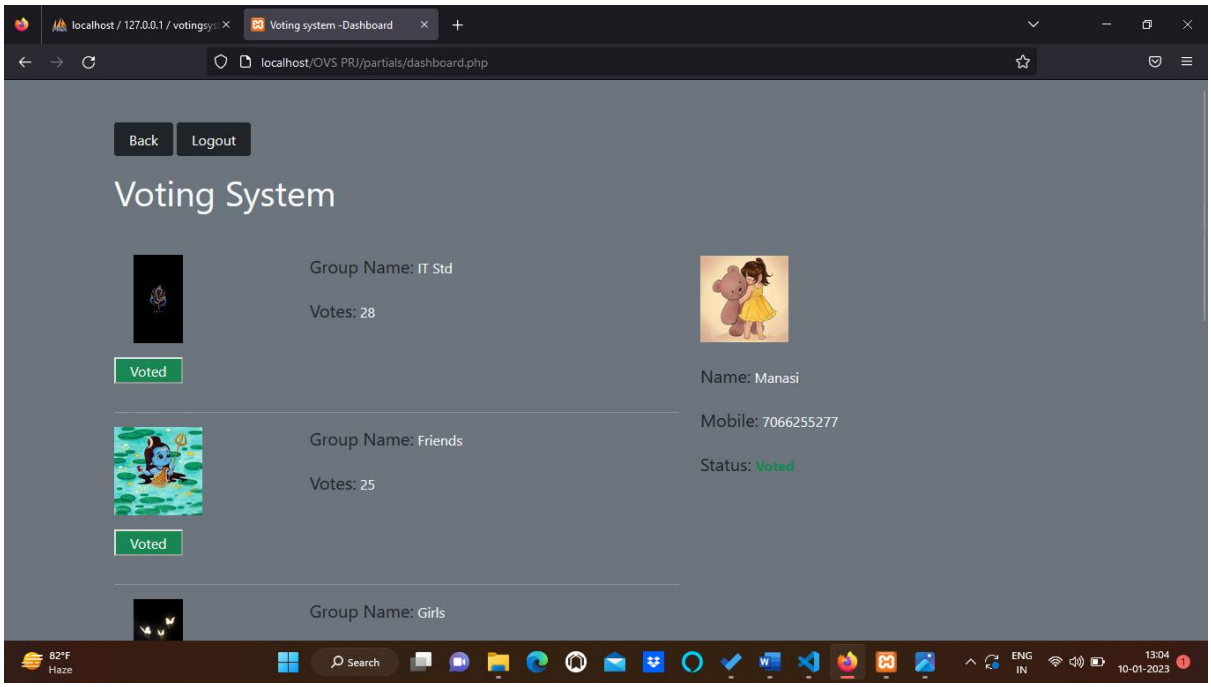
- **Login page:**



- **Voting Page:**




localhost / 127.0.0.1 / votingsys
localhost/OVS%20PRJ/actions/
localhost/OVS PRJ/actions/voting.php
Group Name: Boys
Votes: 26
Vote
Group Name: IT
Votes: 2
Vote
localhost
Voting Successful
OK
Group Name: Employee
Votes: 2
Vote
Transferring data from localhost...
82°F
Haze
Search
ENG
IN
13:04
10-01-2023


localhost / 127.0.0.1 / votingsys
Voting system -Dashboard
localhost/OVS PRJ/partials/dashboard.php
Back
Logout
Voting System
Group Name: IT Std
Votes: 28
Voted
Name: Manasi
Mobile: 7066255277
Status: Voted
Group Name: Friends
Votes: 25
Voted
Group Name: Girls
82°F
Haze
Search
ENG
IN
13:04
10-01-2023

7. IMPLEMENTATION AND CODING

- **INDEX.PHP:**

```
<!DOCTYPE html>

<html lang ="en">

<head>

    <meta charset="UFT-8">

    <meta http-equiv="X-UA-Compatible" content="IF=edge">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>PHP Voting system</title>



    <!-- Bootstrap css link -->

    <link
href="https://cdn.jsdelivr.net/npm/bootstrap@5.0.2/dist/css/bootstrap.min.css"
rel="stylesheet"

   ` integrity="sha384-
EVSTQN3/azprG1Anm3QDgpJLIm9Nao0Yz1ztcQTwFspd3yD65VohhpuuCOmLA
SjC" crossorigin="anonymous">

</head>

<body class="bg-dark">

    <h1 class="text-info text-center p-3">Voting System</h1>

    <div class="bg-info py-4">
```

```
<h2 class="text-center">Login</h2>

<div class="container text-center">

  <form action="./actions/login.php" method="POST">

    <div class="mb-3">

      <input type="text" class="form-control w-50 m-auto" name="username" placeholder="enter your name" require="required"maxlength="10" minilength="10">

    </div>

    <div class="mb-3">

      <input type="text" class="form-control w-50 m-auto" name="mobile" placeholder="enter your mobile number" require="required" maxlength="10" minilength="10">

    </div>

    <div class="mb-3">

      <input type="password" class="form-control w-50 m-auto" name="password" placeholder="enter your password" require="required">

    </div>

    <div class="mb-3">

      <select name="std" class="form-select w-50 m-auto">

        <option value="group">Group</option>

        <option value="voter">Voter</option>

      </select>

    </div>
```

```
            <button type="submit" class="btn btn-dark my-4">Login</button>

            <p>Don't have an account?<a href="./partials/Registration.php" class="text-white">Register Here</a></p>

        </form>

        </div>

    </div>

</body>

</html>
```

- **REGISTRATION.PHP :**

```
<!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>Voting system -Registration page</title>

     <!-- Bootstrap css link -->
```

```
    <link
href="https://cdn.jsdelivr.net/npm/bootstrap@5.0.2/dist/css/bootstrap.min.css"
rel="stylesheet"

   ` integrity="sha384-
EVSTQN3/azprG1Anm3QDgpJLIm9Nao0Yz1ztcQTwFspd3yD65VohhpuuCOmLA
SjC" crossorigin="anonymous">



</head>

<body class="bg-dark">

   <h1 class="text-center text-info p-3">Voting system</h1>

   <div class="bg-info py-4">

      <h2 class="text-center">Register Account</h2>

      <div class="container text-center">

        <form action="../actions/register.php" method="POST"

        enctype="multipart/form-data">

           <div class="mb-3">

              <input type="text" class="form-control w-50 m-auto"

              placeholder="Enter your username" required="required"

              name="username">

           </div>

           <div class="mb-3">

              <input type="text" class="form-control w-50 m-auto"
```

```
    placeholder="Enter your mobile" required="required"
    name="mobile">
</div>
<div class="mb-3">
    <input type="password" class="form-control w-50 m-auto"
    placeholder="Enter your password" required="required"
    name="password">
</div>
<div class="mb-3">
    <input type="password" class="form-control w-50 m-auto"
    placeholder="Enter your cpassword" required="required"
    name="cpassword">
</div>
<div class="mb-3">
    <input type="file" class="form-control w-50 m-auto"
    name="photo">
</div>
<div class="mb-3">
    <select name="std" class="form-select w-50 m-auto">
        <option value="group">Group</option>
```

```
                    <option value="voter">Voter</option>
                </select>
            </div>
            <button type="submit" class="btn btn-dark my-4">Register</button>
            <p>Already have an account? <a href="../" class="text white">Login here</a></p>
        </form>
    </div>
  </div>
</body>
</html>
```

- **CONNECT.PHP:**

```
<?php
$con = mysqli_connect("localhost", "root", "", "votingsystem");
if(!$con){
   die(mysqli_error($con));
}
?>
```

- **REGISTER.PHP:**

```
<?php
include('connect.php');

$username = $_POST['username'];
$mobile = $_POST['mobile'];
$password = $_POST['password'];
$cpassword = $_POST['cpassword'];
$image =$_FILES['photo']['name'];
$tmp_name = $_FILES['photo']['tmp_name'];
$std = $_POST['std'];

if ($password != $cpassword){
    echo '<script>
    alert("passwords do not match")
    window.location="../partials/registration.php";
    </script>';

}
```

```
else{

    move_uploaded_file($tmp_name,"../uploads/$image");
   $sql = "insert into `userdata` (username,mobile,password,photo,standard,
   status,votes)values('$username','$mobile','$password','$image','$std',
   0,0)";
    $result = mysqli_query($con, $sql);

    if($result){
      echo '<script>
      alert ("registration successfull");
      window.location ="../" ;
      </script>';

    }else{
      die(mysqli_error($con));
    }
}
?>
```

- **LOGIN.PHP:**

```
<?php
session_start();
include('connect.php');

$username = $_POST['username'];
$mobile = $_POST['mobile'];
$password = $_POST['password'];
$std = $_POST['std'];

$sql = "select * from `userdata` where username='$username' and mobile='$mobile' and password='$password' and standard='$std'";

$result = mysqli_query($con, $sql);
if(mysqli_num_rows($result)>0){
    $sql="select username,photo,votes,id from `userdata` where standard='group'";
    $resultgroup=mysqli_query($con,$sql);
    if(mysqli_num_rows($resultgroup)>0){
        $groups=mysqli_fetch_all($resultgroup,MYSQLI_ASSOC);
```

```
        $_SESSION['groups']=$groups;
    }
    $data=mysqli_fetch_array($result);
    $_SESSION['id']=$data['id'];
    $_SESSION['status']=$data['status'];
    $_SESSION['data']=$data;

echo '<script>
    window.location="../partials/dashboard.php";
    </script>';

}else{
    echo '<script>
    alert("Invalid credentials");
    window.location="../";
    </script>';
}
?>
```

- **DASHBOARD.PHP:**

```
<?php
session_start();
if(!isset($_SESSION['id'])){
   header('location:../');
}
$data=$_SESSION['data'];
if($_SESSION['status']==1){
   $status='<b class="text-success">Voted</b>';
}else{
   $status='<b class="text-danger">Not Voted</b>';
}

?>

<!DOCTYPE html>
<html lang ="en">
<head>
    <meta charset="UFT-8">
```

```
    <meta http-equiv="X-UA-Compatible" content="IF=edge">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Voting system -Dashboard</title>



    <!-- Bootstrap css link -->

    <link
href="https://cdn.jsdelivr.net/npm/bootstrap@5.0.2/dist/css/bootstrap.min.css"
rel="stylesheet"

   ` integrity="sha384-
EVSTQN3/azprG1Anm3QDgpJLIm9Nao0Yz1ztcQTwFspd3yD65VohhpuuCOmLA
SjC" crossorigin="anonymous">



   <!-- css file -->

   <link rel="stylesheet" href="../style.css">

</head>

<body class="bg-secondary text-light">

   <div class="container my-5">

<a href="../"><button class="btn btn-dark text-light px-3">Back</button></a>

<a href="logout.php"><button class="btn btn-dark text-light px-
3">Logout</button></a>

<h1 class="my-3">Voting System</h1>

<div class="row my-5">
```

```
<div class="col-md-7">
    <?php
if(isset($_SESSION['groups'])){
 $groups=$_SESSION['groups'];
 for($i=0;$i<count($groups);$i++){
    ?>
    <div class="row">
    <div class="col-md-4">
        <img src="../uploads/<?php echo $groups[$i]['photo']?>"
        alt="Group Image">
    </div>
    <div class="col-md-8">
        <strong class="text-dark h5">Group Name:</strong>
        <?php echo $groups[$i]['username']?>
        <br><br>
        <strong class="text-dark h5">Votes:</strong>
        <?php echo $groups[$i]['votes']?>
        <br>
    </div>
</div>
```

```
    <form action="../actions/voting.php" method="post">

<input type="hidden" name="groupvotes" value="<?php echo
$groups[$i]['votes'] ?>">

<input type="hidden" name="groupid" value="<?php echo $groups[$i]['id'] ?>">



<?php

if($_SESSION['status']==1){

    ?>

   <button class="bg-success disable my-3 text-white px-3">Voted</button>

   <?php

}else{

    ?>

    <button class="bg-danger my-3 text-white px-3" type="submit">Vote</button>

    <?php



}



?>

    </form>
```

```
    <hr>
    <?php


    }


}else{
    ?>
    <div class="container">
        <p>No groups to display</p>
    </div>
    <?php
}
    ?>
        <!-- group -->
        </div>
    <div class="col-md-5">
        <!-- user profile -->
        <img src="../uploads/<?php echo $data['photo'];?>" alt="User Image">
        <br>
        <br>
```

```
            <strong class="text-dark h5">Name:</strong>
            <?php echo $data['username'];?><br><br>
            <strong class="text-dark h5">Mobile:</strong>
            <?php echo $data['mobile'];?><br><br>
            <strong class="text-dark h5">Status:</strong>
            <?php echo $status;?><br><br>
        </div>
        </div>
        </div>
    </body>
    </html>
```

- **STYLE.CSS:**

```
img{
    width:100px;
    height:100px;
    object-fit: contain;
}
```

- **VOTING.PHP:**

```
<?php
session_start();
include('connect.php');

$votes=$_POST['groupvotes'];
$totalvotes=$votes+1;

$gid=$_POST['groupid'];
$uid=$_SESSION['id'];

$updatevotes=mysqli_query($con,"update `userdata` set votes='$totalvotes' where id='$gid'");

$updatestatus=mysqli_query($con,"update `userdata` set status=1 where id='$uid'");

if($updatevotes and $updatestatus){
   $getgroups=mysqli_query($con,"select username,photo,votes,id from `userdata` where standard='group'");
   $groups=mysqli_fetch_all($getgroups,MYSQLI_ASSOC);
```

```
    $_SESSION['groups']=$groups;
    $_SESSION['status']=1;
    echo '<script>
    alert("Voting Successful");
    window.location="../partials/dashboard.php";
    </script>';
}else{
    echo '<script>
    alert("Technical error !! vote after sometime");
    window.location="../partials/dashboard.php";
  </script>';
}
?>
```

- **LOGOUT.PHP:**

```
<?php
session_start();
session_destroy();
header('location:../')
?>
```

8. CONCLUSION:

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

In this user who is above 18years's register his/her information on the database and when he/she want to vote he/she has to login by his id and password and can vote to any party only single time. Voting detail store in database and the result is displayed by calculation. By online voting system percentage of voting is increases.

It decreases the cost and time of voting process. It is very easy to use and it is very less time consuming. It is very easy to debug. The traditional method of manual voting system has few drawbacks. This method is obviously not efficient as it wastes the voter's energy and quite slow in term of completion. This smart system involves the voters can cast their vote easily, and can be implemented to the entire India.

9. REFERENCE:

https://www.slideshare.net/wilsonnandasaba/project-reportonline-voting-system

https://www.slideshare.net/wilsonnandasaba/project-reportonline-voting-system