BANGALORE CITY COLLEGE

(Affiliated to Bangalore North University)

A Project Report on

ONLINE VOTING SYSTEM

Submitted by

NISCHITA V(S1818849)

VI Semester project report submitted in partial fulfillment of the requirements for the award of Degree in

BACHELOR OF SCIENCE IN COMPUTERS

Under the Guidance of

Assoc. Prof. Mr. Manjunath. S, MCA
DEPARTMENT OF COMPUTER SCIENCE
Bangalore City College

BANGALORE CITY COLLEGE

DEPARTMENT OF COMPUTER SCIENCE

CERTIFICATE

This is to certify that the project entitled as "ONLINE VOTING SYSTEM" is a work done and submitted by NISCHITA V(S1818849), & in partial fulfillment of the requirements for the award of the degree of BACHELOR OF SCIENCE IN COMPUTERS from BANGALORE CITY COLLEGE, Affiliated to BANGALORE NORTH UNIVERSITY, is done in the computer laboratory during the period of VI semester.

PROJECT GUIDE

HEAD OF THE DEPARTMENT

EXTERNAL EXAMINER INTERNAL EXAMINER

DECLARATION

This is to declare that the project entitled "ONLINE VOTING SYSTEM" submitted by me in partial fulfillment of the requirements for the award of the degree of BACHELOR OF SCIENCE, in the Department of computer science, Bangalore City College, affiliated to Bangalore North University, is a bona-fide record of the project work carried out by me in Bangalore City College, during the period of V1 semester under the supervision and guidance of Mr. Manjunath S. And that it has not been submitted previously by me to any other university/institute.

Date:

Place:

NISCHITA V (S1818849)

ACKNOWLWDGEMENT

It is indeed a pleasant task to thank the people who have contributed towards the successful completion of this project.

We regard out sincere thanks to Dr. MARYADA SHARMA principal, BANGALORE CITY COLLEGE.

We take extreme pleasure to express our deep sense of gratitude to our benefactor Mr. MANJUNATH. S, Head of the Department of Computer Science, Bangalore City College, for his able suggestions during the course of study and in particular for help and encouragement throughout our project work.

We express our deep sense of gratitude to our project guide Mr. Manjunath, Associate professor, Department of Computer Science for his inspiring guidance and encouragement throughout our project work.

We express our special thanks to all faculty members who provided us extra guidance in doing this project. We would like to thanks the lab faculty, who gave us their cooperation fully and willingly.

We express our heart full thanks to our parents, who are behind us in every movement giving us their love and support. We express our heart content thanks and gratitude to the almighty whose love and mercy has reflected miracles in our life.

Project Associates.

NISCHITA V (S1818849)

ONLINE VOTING SYSTEM

INDEX

1. INTRODUCTION

At the end of any political term, millions of voters are called upon to cast their votes for their next political representatives. Unfortunately, many eligible voters will not be able to reach a polling station during the election.

Some are living abroad or are deployed in the military. Some have disabilities and face inaccessible polling locations. Some simply don't have the means to take the time to vote, whether it be due to a job, to travels, or to living far away from a voting center.

But if citizens could vote from anywhere, and at any time, then these hurdles wouldn't exist. This is exactly where online voting comes in. It gives voters the possibility to easily and comfortably fill out and cast a ballot using their own personal computer or smart phone, allowing them to vote from virtually any location with Internet access.

2. OBJECTIVES

Thus, the voting system that is hereby conceived must satisfy the following requirements:

✓ The election system must be openly verifiable and transparent.

✓ The election system must ensure that the vote cast by the voter has been recorded

✓ The main objective of the project is to computerize the election conducted in an organization

✓ Simplicity is also necessary to ensure the participation of common people

✓ Must be Database driven in order to keep track of the voters

.

3. Online Voting vs. Paper and In-person Voting:

1. Your voters can vote from anywhere:

One of the main reasons modern organizations switch to online voting is that they can give their voters the convenience of voting from anywhere, on any device. Since they are given a username and password to access their ballot, all they need is a secure network on which to cast their vote.

2. It makes a complex election easy:

Another good reason to move away from in-person voting is if your organization requires a complex voting setup. Some votes or elections require weighted voting or give their voters an ability to rank their choices to a certain question. These situations are made easy when assisted by a platform that is created to handle those specific actions.

3. An accessible platform leads to higher turnout:

Paper ballots get misplaced and damaged. Polling places can be hard to find, and traffic or other delays can affect turnout. When you move your voting system online, you are eliminating these challenges by making your vote more accessible. While a small learning curve may be necessary to get used to the nuances of navigating a new technology, it's worth it for the number of people that will be able to easily participate and make their voices heard.

4. Lower long-term costs:

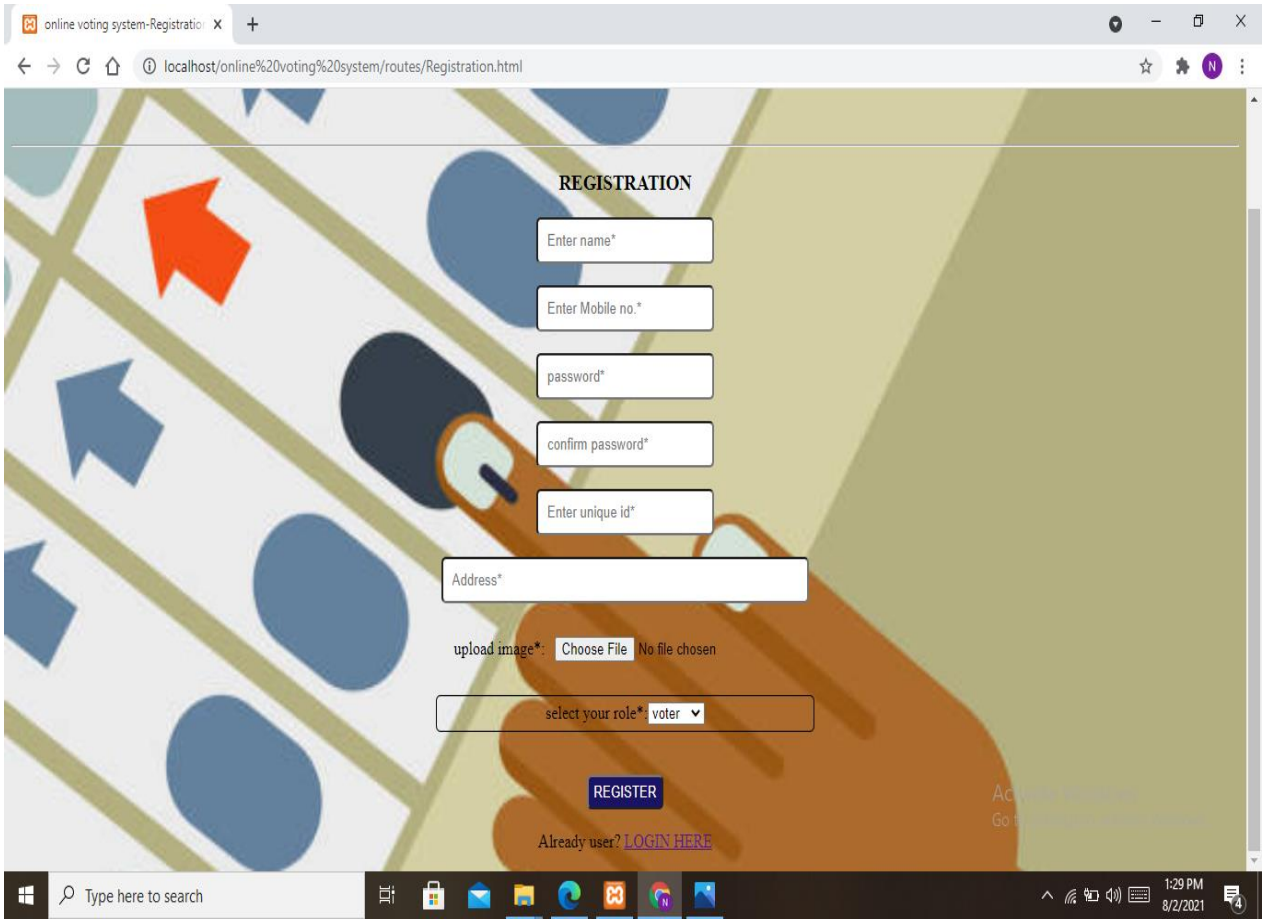
Reserving a space for your voting event can be expensive, not to mention the printing costs associated with hundreds or thousands of paper ballots. Depending on how large your organization is, a centralized voting system can have a positive impact your bottom line. Using an online platform typically requires either a monthly payment or an annual license, depending on your voting needs. Since tabulation is done electronically, and instantly, you won't spend unnecessary dollars and time manually counting ballots. Not to mention, you won't need to pay for staff to help specifically with your voting initiatives.

4. How does it work?

For a voter, online voting is comprised of three main steps:

Registration

To register to vote, Voter has to register her/him self by providing valid details.

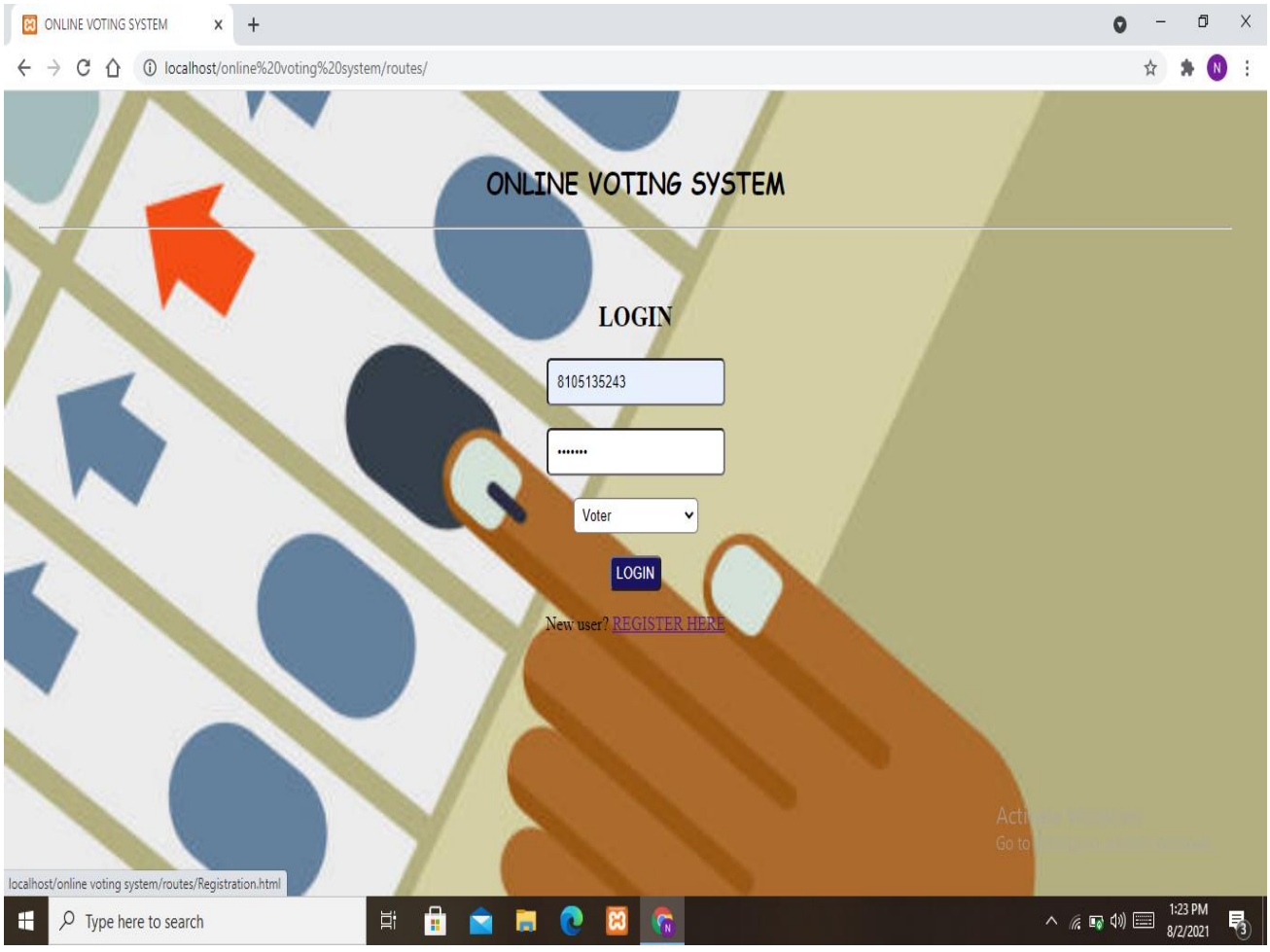


Registration is done by giving valid information such as name. mobile number, password creation, Unique id, Address, uploading photo, selecting our role(voters/Groups) as shown in the above figure.

LOGIN

Logging in using registered mobile number and password.

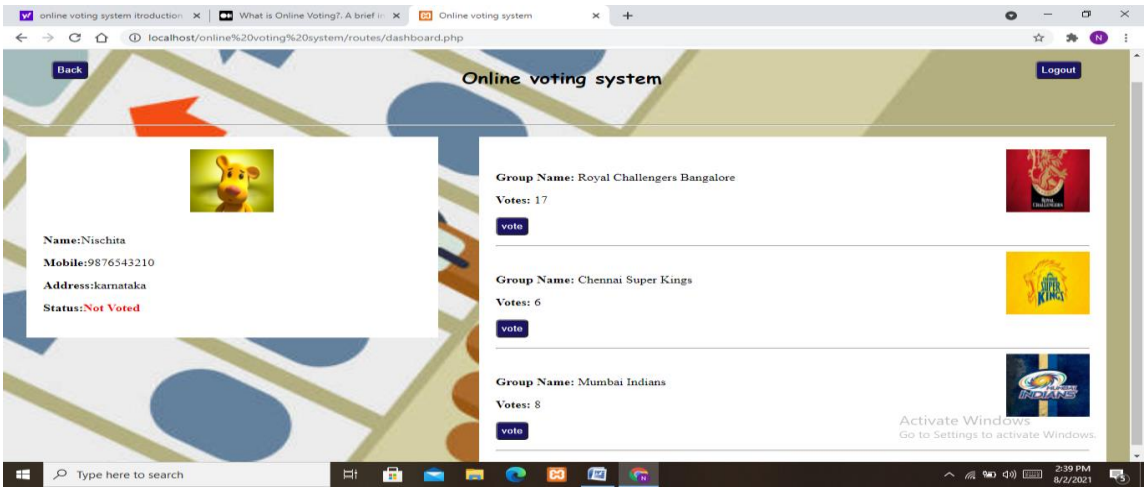
If not one has to register.



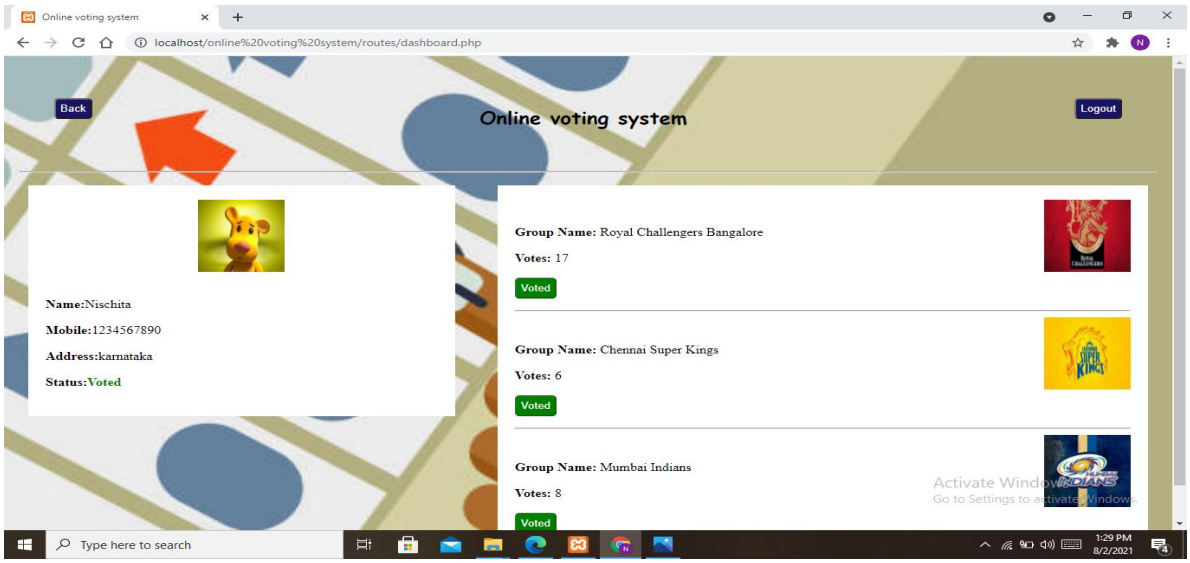
Otherwise it shows" user not found."

Voting

Voters can cast a ballot by opening the election website from an Internet browser, identifying themselves (with their registered mobile number and password, for example), and selecting their voting choices. Then all they need to do is click on the "vote" button. and it also displays voter's status.



We can't vote after voting, vote button converts to voted as in below figure.



5. System Analysis:

Feasibility Study:

The feasibility of the project is analyzed in this phase and business proposal is put forth with a very general plan for the project and some cost estimates. During system analysis the feasibility study of the proposed system is to be carried out. This is to ensure that the proposed system is not a burden to the company. For feasibility analysis, some understanding of the major requirements for the system is essential.

Three key considerations involved in the feasibility analysis are

- ECONOMICAL FEASIBILITY
- TECHNICAL FEASIBILITY
- SOCIAL FEASIBILITY

Economical feasibility:

This study is carried out to check the economic impact that the system will have on the organization. The amount of fund that the company can pour into the research and development of the system is limited. The expenditures must be justified. Thus the developed system as well within the budget and this was achieved because most of the technologies used are freely available. Only the customized products had to be purchased.

Technical feasibility:

This study is carried out to check the technical feasibility, that is, the technical requirements of the system. Any system developed must not have a high demand on the available technical resources. This will lead to high demands on the

available technical resources. This will lead to high demands being placed on the client. The developed system must have a modest requirement, as only minimal or null changes are required for implementing this system.

Social feasibility:

The aspect of study is to check the level of acceptance of the system by the user. This includes the process of training the user to use the system efficiently. The user must not feel threatened by the system, instead must accept it as a necessity. The level of acceptance by the users solely depends on the methods that are employed to educate the user about the system and to make him familiar with it. His level of confidence must be raised so that he is also able to make some constructive criticism, which is welcomed, as he is the final user of the system.

6. INPUT DESIGN AND OUTPUT DESIGN:

Input design:

The input design is the link between the information system and the user. It comprises the developing specification and procedures for data preparation and those steps are necessary to put transaction data in to a usable form for processing can be achieved by inspecting the computer to read data from a written or printed document or it can occur by having people keying the data directly into the system. The design of input focuses on controlling the amount of input required, controlling the errors, avoiding delay, avoiding extra steps and keeping the process simple. The input is designed in such a way so that it provides security and ease of use with retaining the privacy. Input Design considered the following things:

- What data should be given as input?
- How the data should be arranged or coded?
- The dialog to guide the operating personnel in providing input.
- Methods for preparing input validations and steps to follow when error occur.

Objectives:

1. Input Design is the process of converting a user-oriented description of the input into a computer-based system. This design is important to avoid errors in the data input process and show the correct direction to the management for getting correct information from the computerized system.

2. It is achieved by creating user-friendly screens for the data entry to handle large volume of data. The goal of designing input is to make data entry easier and to be free from errors. The data entry screen is designed in such a way that all the data manipulates can be performed. It also provides record viewing facilities.

3. When the data is entered it will check for its validity. Data can be entered with the help of screens. Appropriate messages are provided as when needed so that the user will not be in maize of instant. Thus the objective of input design is to create an input layout that is easy to follow.

Output design:

A quality output is one, which meets the requirements of the end user and presents the information clearly. In any system results of processing are communicated to the users and to other system through outputs. In output design it is determined how the information is to be displaced for immediate need and also the hard copy output. It is the most important and direct source information to the user. Efficient and intelligent output design improves the system's relationship to help user decision-making.

1. Designing computer output should proceed in an organized, well thought out manner; the right output must be developed while ensuring that each output element is designed so that people will find the system can use easily and effectively. When analysis design computer output, they should Identify the specific output that is needed to meet the requirements.

2. Select methods for presenting information.

3. Create document, report, or other formats that contain information produced by the system.

The output form of an information system should accomplish one or more of the following objectives.

- Convey information about past activities, current status or projections of the Future.
- Signal important events, opportunities, problems, or warnings.
- Trigger an action.
- Confirm an action.

7. System Test:

System testing ensures that the entire integrated software system meets requirements. It tests a configuration to ensure known and predictable results. An example of system testing is the configuration oriented system integration test. System testing is based on process descriptions and flows, emphasizing pre-driven process links and integration points.

White Box Testing:

White Box Testing is a testing in which in which the software tester has knowledge of the inner workings, structure and language of the software, or at least its purpose. It is purpose. It is used to test areas that cannot be reached from a black box level.

Black Box Testing:

Black Box Testing is testing the software without any knowledge of the inner workings, structure or language of the module being tested. Black box tests, as most other kinds of tests, must be written from a definitive source document, such as specification or requirements document, such as specification or requirements document. It is a testing in which the software under test is treated, as a black box .you cannot “see” into it. The test provides inputs and responds to outputs without considering how the software works.

Unit Testing:

Unit testing is usually conducted as part of a combined code and unit test phase of the software lifecycle, although it is not uncommon for coding and unit testing to be conducted as two distinct phases.

Test strategy and approach

Field testing will be performed manually and functional tests will be written in

detail.

Test objectives

- All field entries must work properly.
- Pages must be activated from the identified link.
- The entry screen, messages and responses must not be delayed.

Features to be tested

- Verify that the entries are of the correct format
- No duplicate entries should be allowed
- All links should take the user to the correct page.

Integration Testing:

Software integration testing is the incremental integration testing of two or more integrated software components on a single platform to produce failures caused by interface defects.

The task of the integration test is to check that components or software applications, e.g. components in a software system or – one step up – software applications at the company level – interact without error.

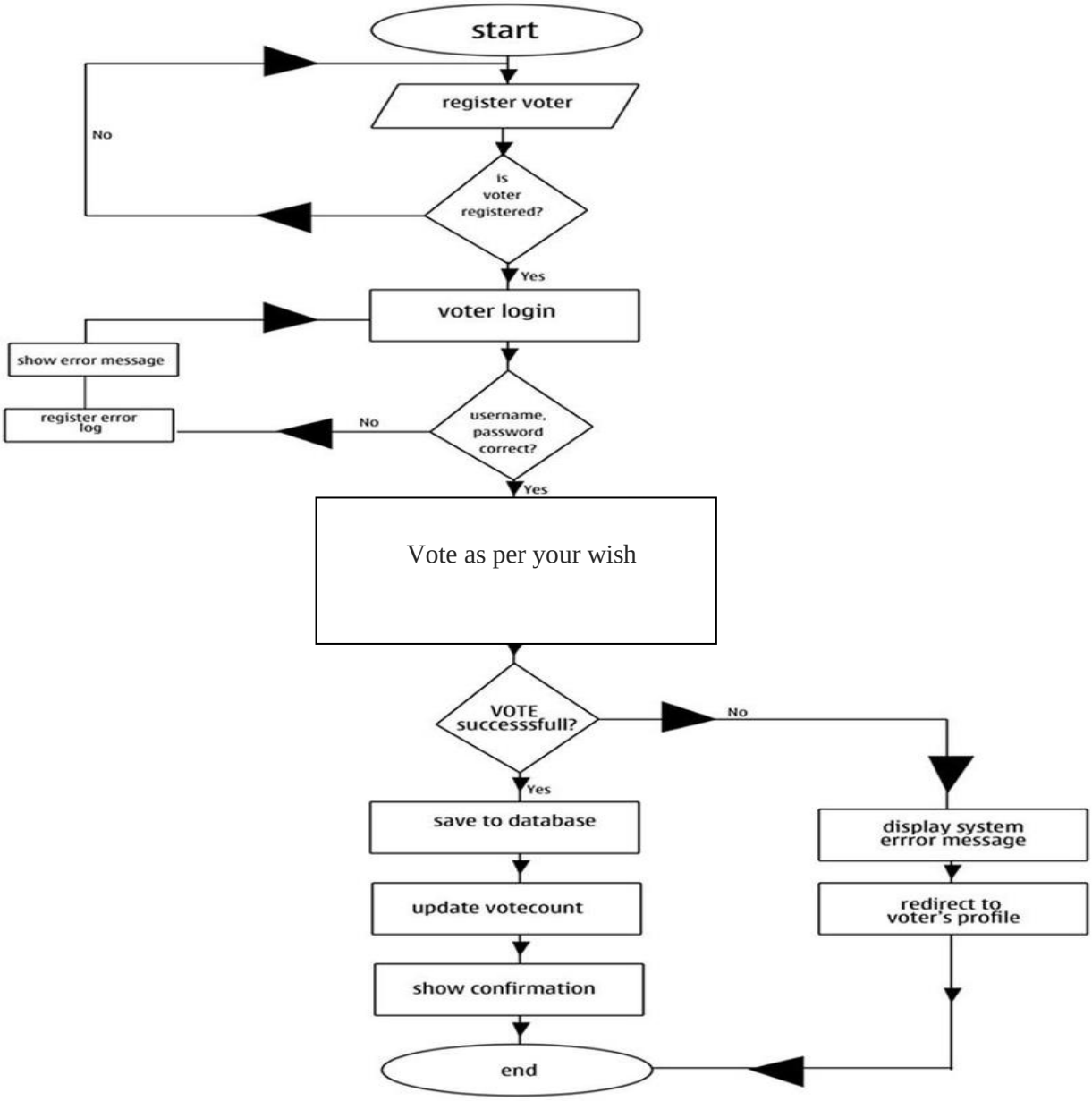
Test Results: All the test cases mentioned above passed successfully. No defects encountered.

3 Acceptance Testing: User Acceptance Testing is a critical phase of any project and requires significant participation by the end user. It also ensures that the system meets the functional requirements.

Test Results: All the test cases mentioned above passed successfully. No defects encountered.

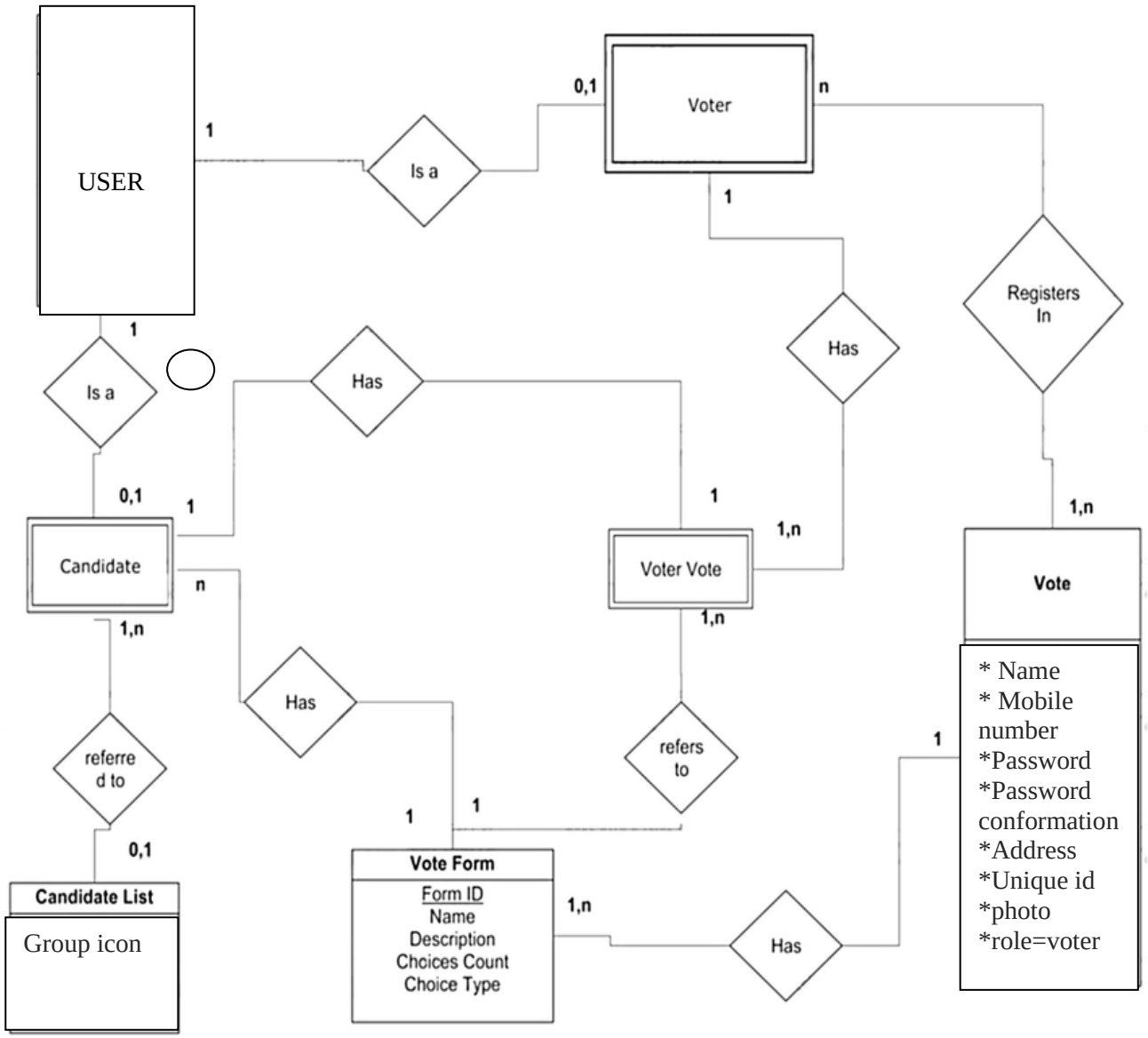
8. Flowchart

A flowchart is a type of diagram that represents a workflow or process. A flowchart can also be defined as a diagrammatic representation of an algorithm, a step-by-step approach to solving a task. The flowchart shows the steps as boxes of various kinds, and their order by connecting the boxes with arrows.



9. E-R Diagram

An entity–relationship model describes interrelated things of interest in a specific domain of knowledge. A basic ER model is composed of entity types and specifies relationships that can exist between entities.



10. REQUIREMENT SPECIFICATION:

- **SOFTWARE REQUIREMENT**

➢ Frontend:

Front-end web development is the development of the graphical user interface of a website, through the use of HTML, CSS, and JavaScript, so that users can view and interact with that website.

➢ Backend:

The back end refers to **parts of a computer application or a program's code that allow it to operate and that cannot be accessed by a user**. Most data and operating syntax are stored and accessed in the back end of a computer system. Typically the code is comprised of one or more programming languages.

Backend used in this project: MYSQL Server

➢ Operating System: Windows, Linux

➢ Server: A server is a computer or system that provides resources, data, services, or programs to other computers, known as clients, over a network. An individual system can provide resources and use them from another system at the same time. This means that a device could be both a server and a client at the same time.

Server used in this project Apache

➢ Browser: Any

- **HARDWARE REQUIREMENT**

➢ 1 GB (min) hard free drive space

➢ 200 MB RAM (min)

11. CODING

1 .LOGIN

```
<?php
session_start();
include("connect.php");
$mobile = $_POST['mobile'];
$password = $_POST['password'];
$role = $_POST['role'];
$check = mysqli_query($connect,"SELECT * FROM user WHERE mobile='$mobile'
AND password = '$password' AND role='$role' ");
if(mysqli_num_rows($check)>0){
$userdata = mysqli_fetch_array($check);
$groups = mysqli_query($connect, " SELECT * FROM user WHERE role=2 ");
$groupsdata = mysqli_fetch_all($groups, MYSQLI_ASSOC);
$_SESSION['userdata'] = $userdata;
$_SESSION['groupsdata'] = $groupsdata;
echo '
<script>
window.location = "../routes/dashboard.php";
</script>
';
}
else{
echo '
<script>
  alert("User not found");
window.location = "../routes/index.html";
</script>
';
}
?>
```

2. REGISTER

```
<?php
include("connect.php");
$name = $_POST['name'];
$mobile = $_POST['mobile'];
$password = $_POST['password'];
$cpassword = $_POST['cpassword'];
$unid = $_POST['unid'];
$address = $_POST['address'];
$image = $_FILES['photo']['name'];
$tmp_name = $_FILES['photo']['tmp_name'];
$role = $_POST['role'];
if($password==$cpassword){
move_uploaded_file($tmp_name,"../uploads/$image");
$insert = mysqli_query($connect,"INSERT INTO user(name, mobile,  password, unid, address, photo, role, status, votes) VALUES ('$name','$mobile','$password','$unid','$address','$image','$role', 0, 0)");
if($insert){
echo '
<script>
  alert("Registration Successfull!");
window.location = "../routes/index.html";
</script>
';
}
else{
echo '
<script>
  alert("Some error occured!");
window.location = "../routes/Registration.html";
</script>
';
}
}
else{
echo '
<script>
  alert("password and confirm password does not match!");
window.location = "../routes/Registration.html";
```

```
</script>
';
}
?>
```

3. VOTE

```
<?php
session_start();
include('connect.php');
$votes = $_POST['gvotes'];
$total_votes = $votes+1;
$gid = $_POST['gid'];
$uid = $_SESSION['userdata']['id'];
$update_votes = mysqli_query($connect, "UPDATE user SET votes='$total_votes' WHERE id='$gid' ");
$update_user_status = mysqli_query($connect,"UPDATE user SET status=1 WHERE id='$udi' ");
if($update_votes and $update_user_status){
$groups = mysqli_query($connect, "SELECT * FROM user WHERE role=2");
$groupsdata = mysqli_fetch_all($groups, MYSQLI_ASSOC);
$_SESSION['userdata']['status'] = 1;
$_SESSION['groupsdata'] = $groupsdata;
echo '
<script>
alert(" Voting Successfull...!! ");
window.location = "../routes/dashboard.php";
</script>
';
}
else{
echo '
<script>
alert(" Some error occured!! ");
window.location = "../routes/dashboard.php";
</script>
';
}
?>
```

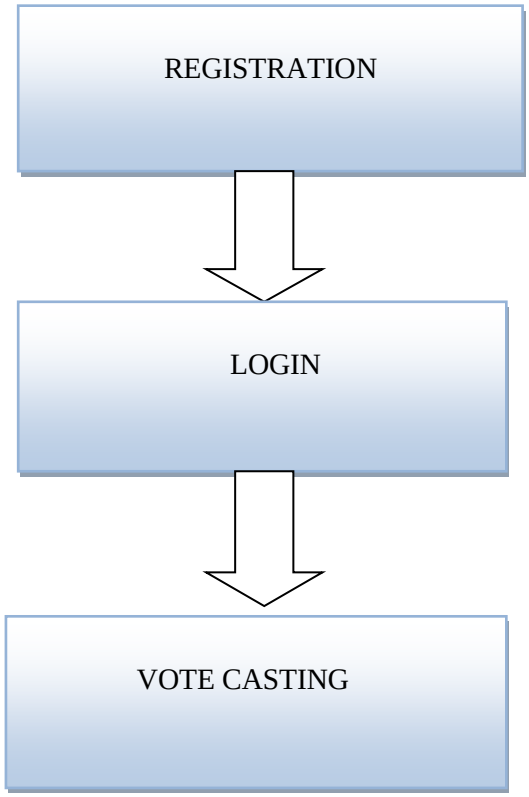
4. CONNECT

```
<?php
$connect = mysqli_connect('localhost', 'root', 'nischi123','votingg') or die("connection failed!");
if($connect){
echo "connected!";
}
else{
echo "Not connected!";
}
?>
```

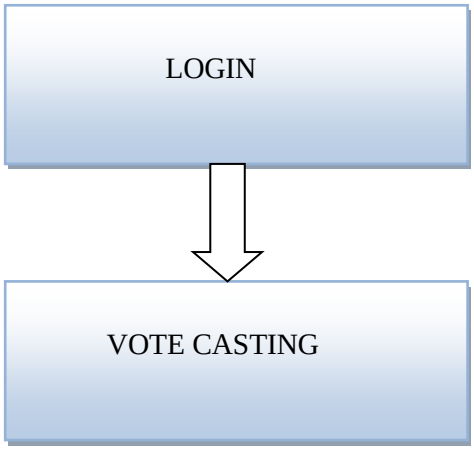
5. TABLE CREATED IN MYSQL

	#	Name	Type
☐	1	id	int(11)
☐	2	name	text
☐	3	mobile	bigint(10)
☐	4	password	varchar(50)
☐	5	address	varchar(100)
☐	6	unid	int(10)
☐	7	photo	varchar(255)
☐	8	role	int(1)
☐	9	status	int(1)
☐	10	votes	int(100)

12. STRUCTURE OF THE PROJECT



(FOR NEW USERS)



(FOR EXISTING USERS)

13. PROBLEM STATEMENT

• Many problems are faced by the people in voting manually:

✓ Much time is required.

✓ It has been observed that in some cases booth capturing has been reported.

✓ Reduces the chances of conflicts.

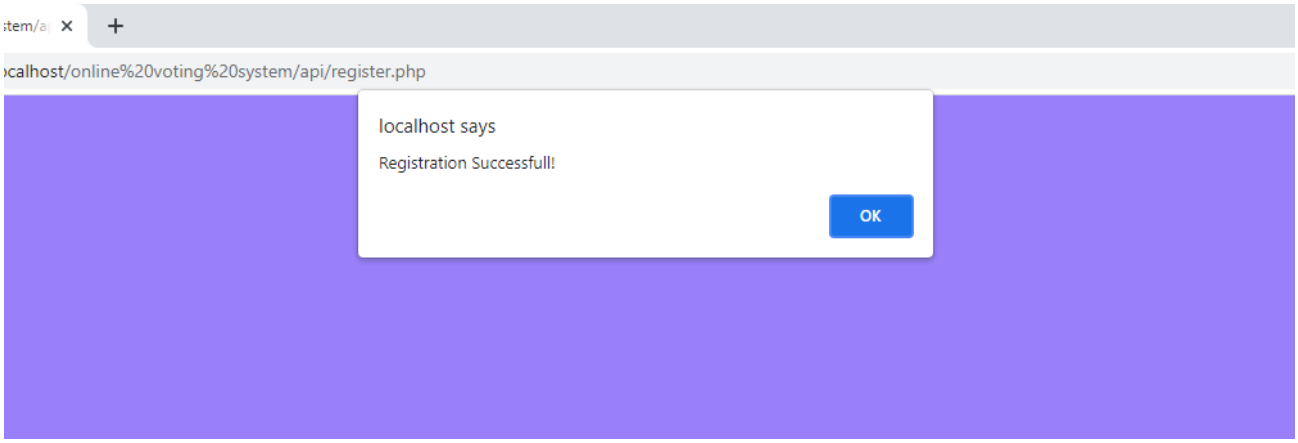
✓ Reduces the time for ballot counting and many others.

13. FUTURE SCOPE

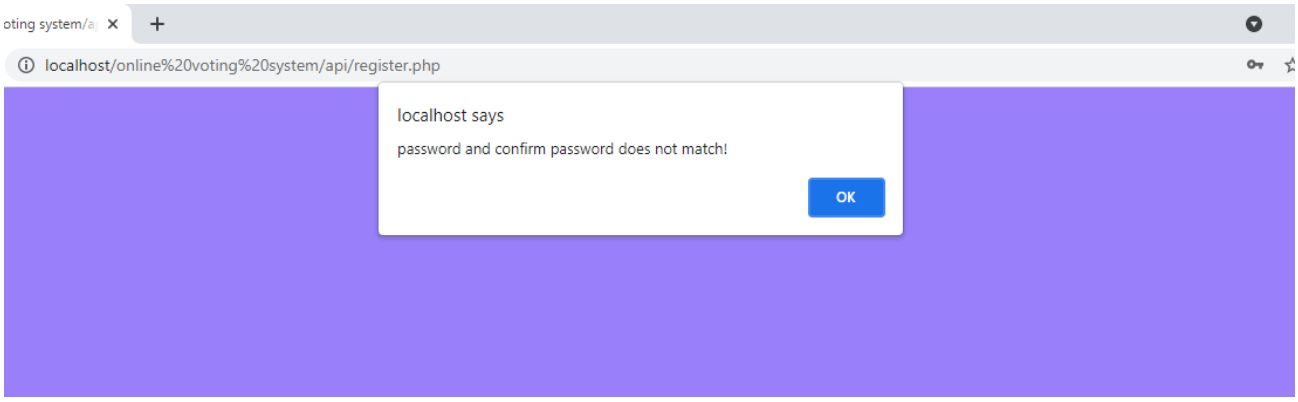
As this website provides better way of election between groups and voter, hence we suppose that this project has a greater scope and is important requirement is to provide a compact, stable system of voting with a facility to be at home(by making it highly secure.
It may increase number of voters

14. MESSAGES

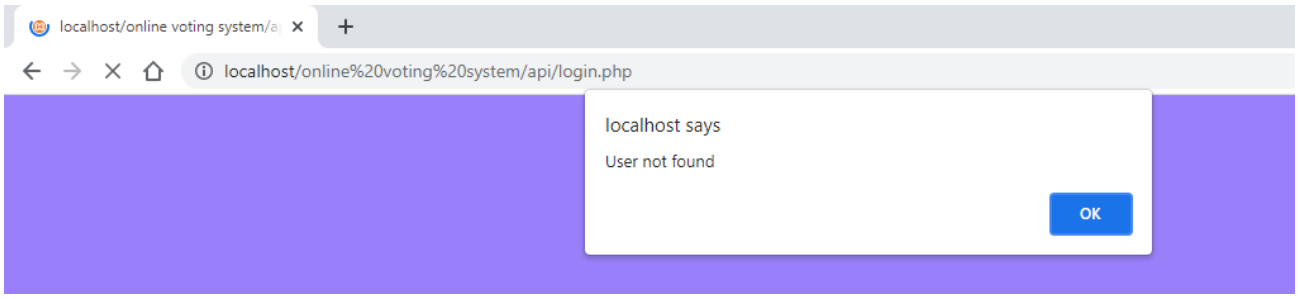
- After successful registration



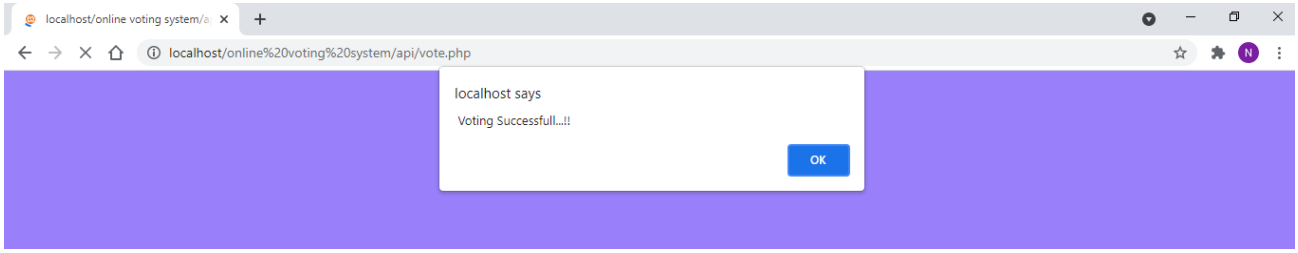
- If password and confirm password doesn't match



- **I**f we enter wrong user id or wrong password



- **A**fter successful voting



15. CONCLUSION

As this website provides better way of election between groups and voter, hence we suppose that this project has a greater scope and is important requirement is to provide a compact, stable system of voting with a facility to be at home(by making it highly secure