ONLINE VOTING SYSTEM

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1.Aim:

The specific objectives of the project include:

❖ Reviewing the existing/current voting process ;

❖ Implementing a an automated/online voting system;

❖ Validating the system to ensure that only legible voters are allowed to vote;

❖ Error free of counting of polled votes.

2. 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 votes 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.

3. Introduction To Online Voting System:

"ONLINE VOTING SYSTEM" is an online voting technique. In this system people who have citizenship of India 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 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. He\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 theirdetails. After the validity of them being citizens of India 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 as a voter.

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

Online voting system (OVS) will require being very precise or cost cutting to produce an effective election management system.

Therefore crucial points that this (OVS) emphasizes on are listed below.

    i.   Require less number of staff during the election.

    ii.   This system is a lot easier to independently moderate the elections and subsequently reinforce its transparency and fairness.

    iii.   Less capital, less effort, and less labor intensive, as the primary cost and effort will focus primarily on creating, managing, and running a secure online portal.

    iv.   Increased number of voters as individual will find it easier and more convenient to vote, especially those abroad.

4. Existing System of Voting

1. **Paper-based voting**:The voter gets a blank ballot and use a pen or a marker to indicate he want to vote for which candidate. Hand-counted ballots is a time and labor consuming process, but it is easy to manufacture paper ballots and the ballots can be retained for verifying, this type is still the most common way to vote.

2. **Lever voting machine**: Lever machine is peculiar equipment, and each lever is assigned for a corresponding candidate. The voter pulls the lever to poll for his favorite candidate. This kind of voting machine can count up the ballots automatically. Because its interface is not user-friendly enough, giving some training to voters is necessary.

3. **Direct recording electronic voting machine**:This type, which is abbreviated to DRE, integrates with keyboard; touch screen, or buttons for the voter press to poll. Some of them lay in voting records and counting the votes is very quickly. But the other DRE without keep voting records are doubted about its accuracy.

4. **Punch card**: The voter uses metallic hole-punch to punch a hole on the blank ballot. It can count votes automatically, but if the voter's perforation is incomplete, the result is probably determined wrongfully.

5. **Optical voting machine**: After each voter fills a circle correspond to their favorite candidate on the blank ballot, this machine selects the darkest mark on each ballot for the vote then computes the total result. This kind of machine counts up ballots rapidly. However, if the voter fills over the circle, it will lead to the error result of optical-scan.

Recent years, a considerable number of countries has adopted E-voting for their official elections. These countries include; America, Belgium, Japan and Brazil.

4.1 Problems with the Existing Voter Registration System

The problems of the existing manual system of voting include among others the following:

1. **Expensive and Time consuming**: The process of collecting data and entering this data into the database takes too much time and is expensive to conduct, for example, time and money is spent in printing data capture forms, in preparing registration stations together with human resources, and there after advertising the days set for registration process including sensitizing voters on the need for registration, as well as time spent on entering this data to the database.

2. **Too much paper work**: The process involves too much paper work and paper storage which is difficult as papers become bulky with the population size.

3. **Errors during data entry:** Errors are part of all human beings; it is very unlikely for humans to be 100 percent efficient in data entry.

4. **Loss of registration forms:** Some times, registration forms get lost after being filled in with voters' details, in most cases these are difficult to follow-up and therefore many remain unregistered even though they are voting age nationals and interested in exercising their right to vote.

5. **Short time provided to view the voter register:** This is a very big problem since not all people have free time during the given short period of time to check and update the voter register.

6. Above all, a number of voters end up being locked out from voting.

5.Proposed System:

➢ Project is related to Online Voting System.

➢ The project maintains two levels of users:-

- Administrator Level
- Voter Level Main facilities available in this project are:-

➢ Maintaining voter's Identification.

- Providing online voting management.
- Providing Updation of voter's information.
- Provide voter information to ELECTION COMMISION OF INDIA.

- ELECTION COMMISION OF INDIA maintains the complete information of voter.
- Voter can give his\her vote from any part of India.

5.1 Advantages of proposed system

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. **Accuracy: -** The level of accuracy in the proposed system will be higher. All operation would be done correctly and it ensures that whatever information is coming from the center is accurate.

3. **Reliability:** - The reliability of the proposed system will be high due to the above stated reasons. The reason for the increased reliability of the system is that now there would be proper storage of information.

4. **No Redundancy: -** In the proposed system utmost care would be that no information is repeated anywhere, in storage or otherwise. This would assure economic use of storage space and consistency in the data stored.

5. **Immediate retrieval of information: -** The main objective of proposed system is to provide for a quick and efficient retrieval of information.

6. **Immediate storage of information: -** In manual system there are many problems to store the largest amount of information.

7. **Easy to Operate: -** The system should be easy to operate and should be such that it can be developed within a short period of time and fit in the limited budget of the user.

6.   Requirment Specification:

6.1 Software Requirments:

i.   **MYSQL DBMS-** It allows combination, extraction, manipulation and organization of data in the voters' database. It is platform independent and therefore can be implemented and used across several such as Windows, Linux server and is compatible with various hardware mainframes. It is fast in performance, stable and provides business value at a low cost.

ii.   **DREAM WEAVER-**The dreamweaver IDE is an award-winning integrated development environment available for Windows, Mac, Linux, and Solaris. The projectdreamweaver consists of an open-source IDE and an application platform that

enable developers to rapidly create web, enterprise, desktop, and mobile applications using the Java platform, as well as PHP, JavaScript and Ajax, Groovy and Grails, and C/C++.

iii. **JAVA coding-**This is for advanced user who find PHP codes easy to work with.

iv. **Testing-** is done via AMPPS SERVER.

v. **Web browsers**: Mozilla Firefox, Google chrome, Opera and Internet Explorer

6.2 HardwareRequirments:

- Microsoft Windows XP Professional SP3/Vista SP1/Windows 7 Professional/ Windows 8:

    - **Processor:** 800MHz Intel Pentium III or equivalent

    - **Memory:** 512 MB

    - **Disk space:** 750 MB of free disk space

7 Modules:

1.Login

2.Voter details

3.Add citizens

4.Polling

5.Result

7.1. Module description

1. Login

It is the login session for the administrator voter and exit.

2. Voter details

It is used to view voter details from database.

3.Addcitizens

It is used to add a voter into database and it includes searching a voter and removing voter from database.

4. Polling

It is used to poll vote to candidates during election.

5. Report generation

It is used to get election results and also reset database after all process is completed.

8. System Design:

8.1-DataFlowDiagrams:

A data flow diagram is a graphical representation that depicts information flow and the transforms that are applied as data move from input to output.The basic form of a data flow diagram, also known as a data flow graph or a bubble chart, The data flow diagram may be used to represent a system or software at any level of abstraction.

As information moves through software, it is modified by a series of transformations. A data flow diagram is a graphical representation that depicts information flow and the transforms that are applied as data move from input to output. The basic form of a data flow diagram, also known as a *data flow graph* or a bubble chart. DFD is an abstract description of the system. The data flow diagram may be used to represent a system or software at any level of abstraction.
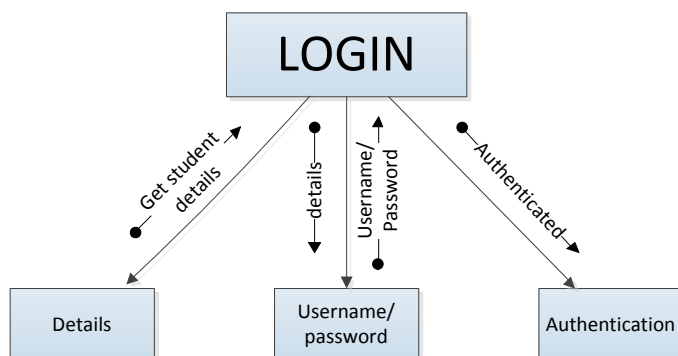
DFDs may be partitioned into levels that represent increasing information flow and functional detail. Therefore, the DFD provides a mechanism for functional modeling as well as information flow modeling. DFDs are very useful in understanding a system and can be effectively used during analysis.

DFDs can be hierarchically organized, which helps in progressively partitioning and analyzing large systems. Such DFDs are called *leveled DFDs. Context diagram is a diagram* in which the entire system is treated as a single process and all its inputs, outputs, sinks, and sources are identified and shown.
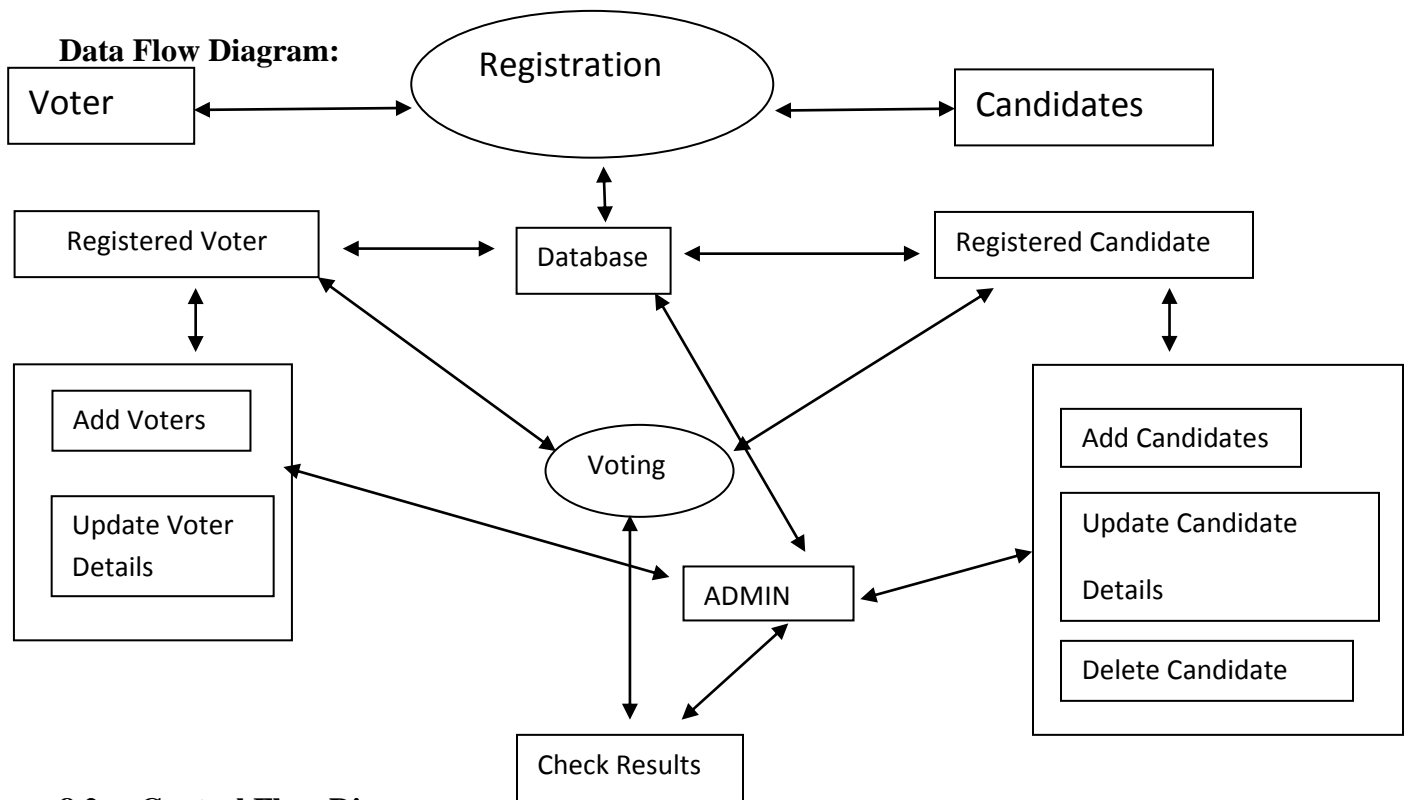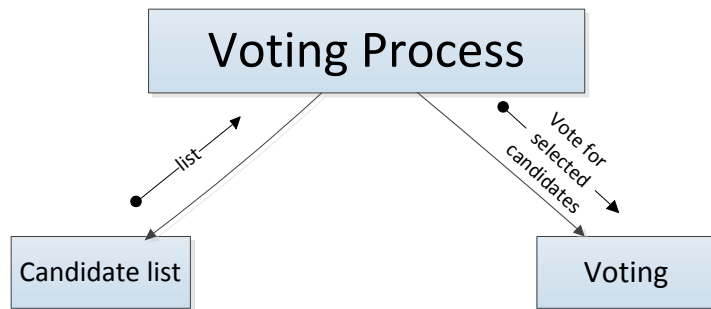
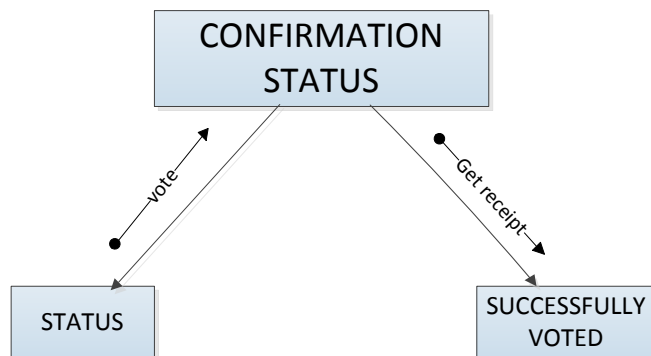**Data Flow Diagram:**

8.2 Control Flow Diagram:

The first-level of control flow results in a very high level structure, where each subordinate module has a lot of processing to do. To simplify these modules, they must be factored into subordinate modules that will distribute the work of a module. Each of the input, output and transformation modules must be considered for factoring. A subordinate input module is created for each input data stream coming into this new central transform, and a subordinate transform module is created for the new central transform. The new input modules now created can then be factored again, untill the physical inputs are reached. The factoring of the output modules is symmetrical to the factoring of the input modules.The goal is to determine sub transforms that will together compose the overall transform and then repeat the process for the newly found transforms, until we reach the atomic modules.

8.2.1.Control flow of Input module

```
        ┌─────────────────────┐
        │   Voting Process    │
        └─────────────────────┘
         ╱                    ╲
      list          Vote for
                    selected
                    candidates
   ┌───────────────┐    ┌─────────────┐
   │ Candidate list│    │   Voting    │
   └───────────────┘    └─────────────┘
```

8.2.2 Control flow of Transform Module

```
        ┌─────────────────────┐
        │    CONFIRMATION     │
        │       STATUS        │
        └─────────────────────┘
         ╱                   ╲
       vote          Get receipt
   ┌───────────────┐    ┌─────────────────┐
   │    STATUS     │    │  SUCCESSFULLY   │
   │               │    │     VOTED       │
   └───────────────┘    └─────────────────┘
```

8.2.3. Control flow of Output Module

8.3   **UML DIAGRAMS:**

8.3.1:USECASE DIAGRAM:

It show various activies the users can perform on the system.they model the dynami aspects of system.it provide user perspective of the system.

Actor:

An actor is a user of system playing a particular role.

Use case:

Use case is particular activity a user can do on the system.

Relationship:

Relationship are simply illustrated with a line connecting actors to use cases.
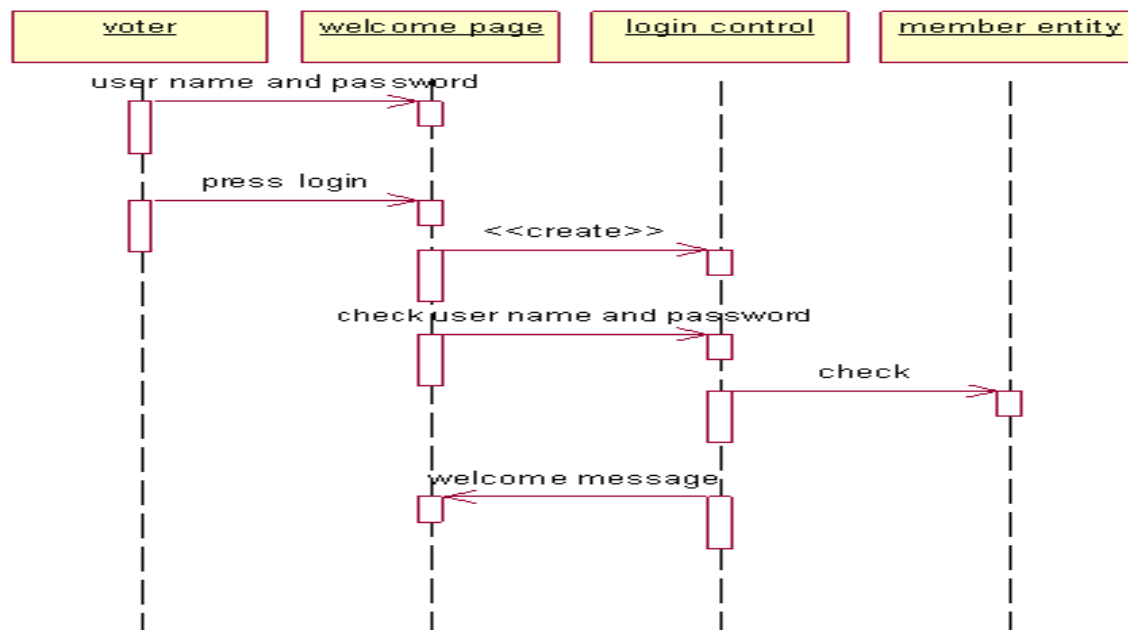
8.3.2. Class Diagram:

A class diagram describes the types of objects in the system and the various kinds of static relationships that exist among them. i.e., A graphical representation of a static view on declarative static elements. A class is the description of a set of objects having similar attributes, operation, relationships and behaviour.
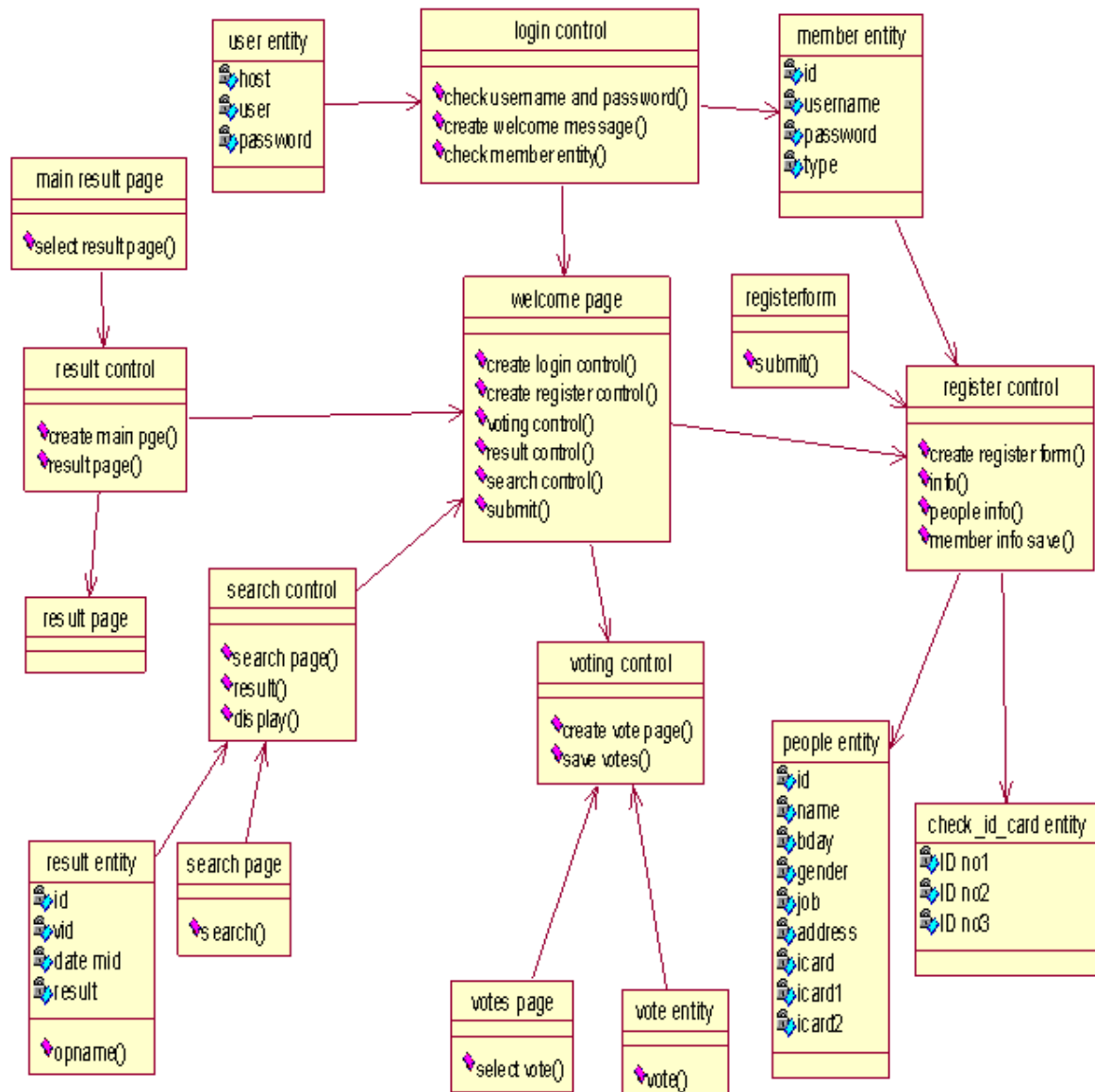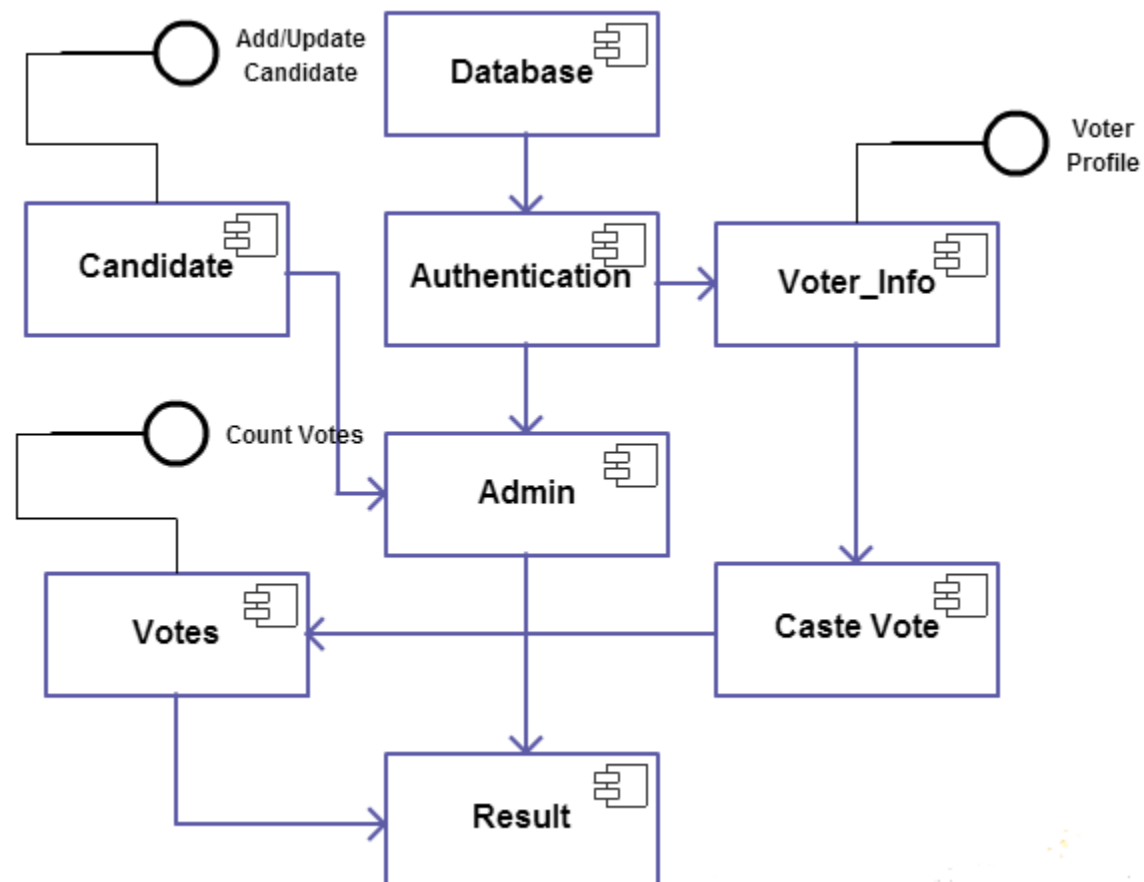
8.3.3. Sequence Diagram

A sequence diagram is unified modelling language (UML) is a kind of interaction diagram that shows how processes operate with one another and in what order. It is a construct of a Message Sequence chart. Sequence diagrams are sometimes called event diagrams, event scenarios, and timing diagrams.
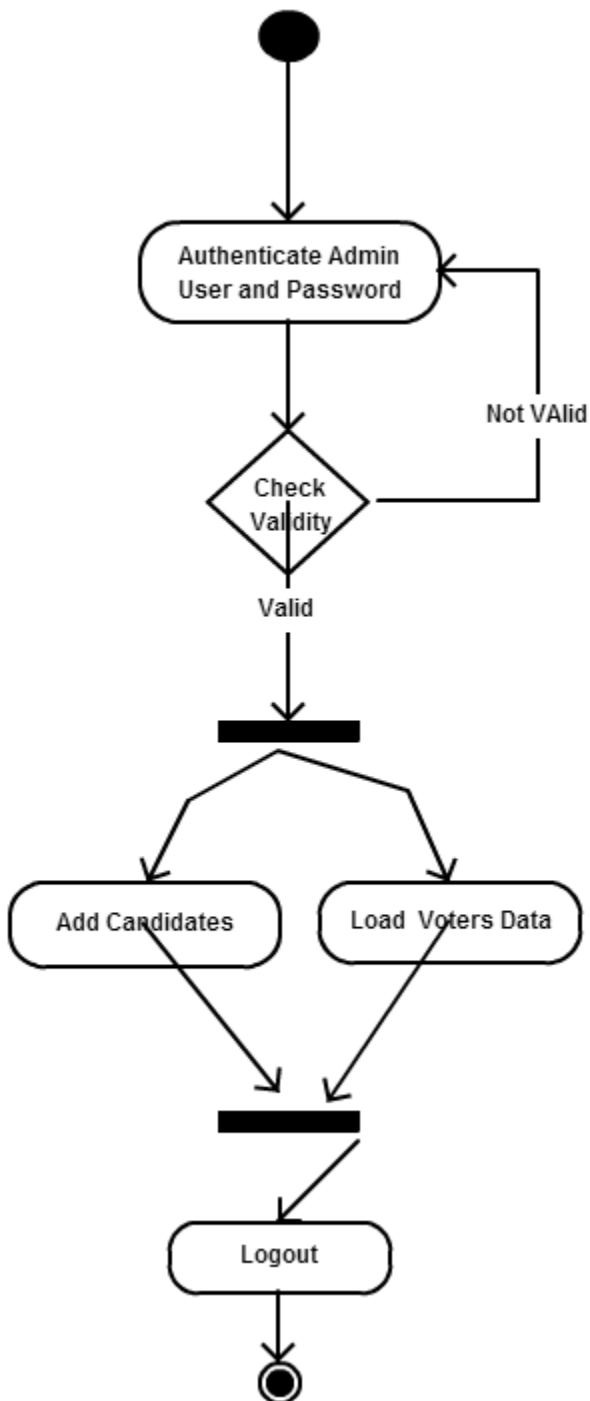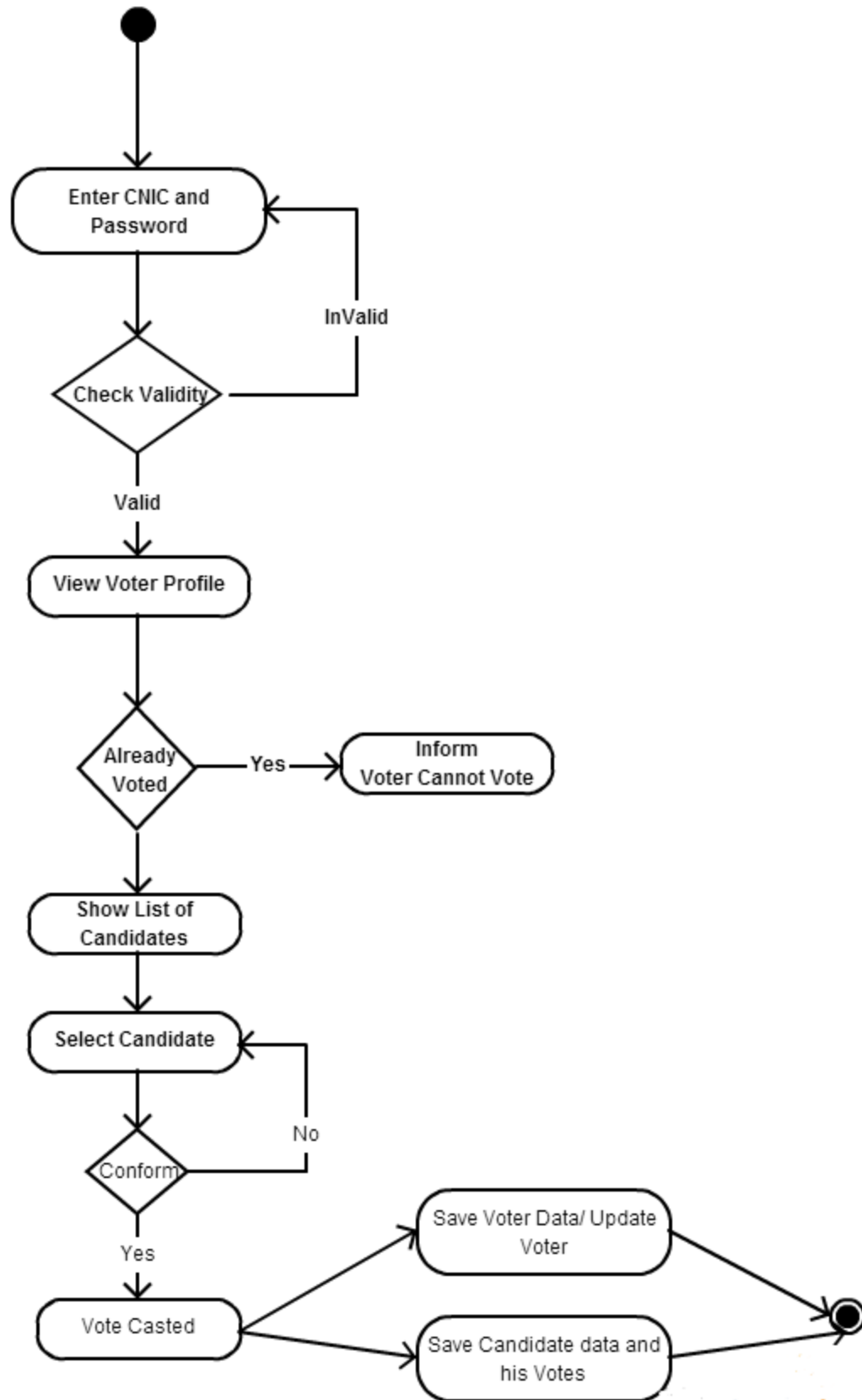
8.3.4 Component diagram:

8.3.5 Activity diagram:

Admin:

User :

Enter CNIC and Password

InValid

Check Validity

Valid

View Voter Profile

Already Voted

Yes → Inform Voter Cannot Vote

Show List of Candidates

Select Candidate

No

Conform

Yes

Vote Casted

Save Voter Data/ Update Voter

Save Candidate data and his Votes

8.4 Data Base Tables:-

This project uses many tables:

> Admin

> Voter

> Candidate

Admin Table:-

Field Name	Data Type	Description
Username	Varchar	Login id for Admin.(Primary key)
Password	Varchar	Password for Login

Voter Table:-

Field Name	Data Type	Description
VoterId	Integer	Login id for Voter(Primary key)
Name	Varchar	Name of the voter
Sex	Varchar	Sex of voter
Age	Integer	Age of voter
City	Varchar	City of voter
Elected	varchar	Choosed person

Candidate Table:-

Field Name	Data Type	Description
Party name	Varchar	Party name (Primary key)
Name	Varchar	Name of the voter
Sex	Varchar	Sex of voter
Age	Integer	Age of voter
City	Varchar	City of voter

Database queries:

createdatabasemani

createtable admin(Usernamevarchar(20),Password varchar(20))

insertinto admin values('manish','manish'))

createtable voter(VoterId varchar(11) PRIMARY KEY ,Name varchar(20), Sex varchar(10),Age integer,City varchar(20),varchar(20),Elected varchar(11))

createtable candidate(Party namevarchar(11) PRIMARY KEY ,Name varchar(20), Sex varchar(10),Age integer,City varchar(20))

insertinto voter values (77,'manish','male',19,'kurnool');

insertinto candidate values (congress,'manish','male',19,'kurnool');

delete from voter where city= 'kurnool'

select name,count(*) from voter group by Partyname,city.

9. **Coding:**

HOME PAGE CODING:
```
<?php
```

```php
$host="localhost";
$user="root";
$pass="mysql";
$db="mani";

 mysql_connect($host,$user,$pass);
 mysql_select_db($db);

 if(isset($_POST['username'])) {
        $username = $_POST['username'];
        $password = $_POST['password'];
        $sql="SELECT  *  FROM  admin  WHERE  username='".$username."'AND
password='".$password."'";
    $res=mysql_query($sql);
        if(mysql_num_rows($res)==1){
        echo "you have logged in";
        }
else{
        echo "you have not  logged in.";
        exit();
        }
        }
        ?>
<html>
<body bgcolor="black">
<img src="../pic.jpg" >
<p align="center"><font color="white" size=8 align=center>ADMIN LOGIN!!!!!

<tr>
<td colspan="2">
<div align="center" >
<form name="loginform" action="home.php" method="post">
<table    width="309"bgcolor=brown    border="1"    align="center"    cellpadding="2"
cellspacing="0">
<tr>
<td colspan="2">
</td>
</tr>
<tr>
<td width="116"><div align="right">Username</div></td>
<td width="177"><input name="username" type="text" /></td>
</tr>
<tr>
<td><div align="right">Password</div></td>
<td><input name="password" type="password" /></td>
</tr>
```

```
<tr>
<td><div align="center"><input name="" type="submit" value="login" /></td>
</tr>
</table>
</form>
</html>
```

INSERTING THE   VALUES:

```
<html>
<script type="text/JavaScript">
<!--
function MM_findObj(n, d) { //v4.01
  var p,i,x;  if(!d) d=document; if((p=n.indexOf("?"))>0&&parent.frames.length) {
    d=parent.frames[n.substring(p+1)].document; n=n.substring(0,p);}
  if(!(x=d[n])&&d.all) x=d.all[n]; for (i=0;!x&&i<d.forms.length;i++) x=d.forms[i][n];
  for(i=0;!x&&d.layers&&i<d.layers.length;i++)
x=MM_findObj(n,d.layers[i].document);
  if(!x && d.getElementById) x=d.getElementById(n); return x;
}

function MM_validateForm() { //v4.0
  var i,p,q,nm,test,num,min,max,errors='',args=MM_validateForm.arguments;
  for (i=0; i<(args.length-2); i+=3) { test=args[i+2]; val=MM_findObj(args[i]);
    if (val) { nm=val.name; if ((val=val.value)!="") {
      if (test.indexOf('isEmail')!=-1) { p=val.indexOf('@');
        if (p<1 || p==(val.length-1)) errors+='- '+nm+' must contain an e-mail address.\n';
      } else if (test!='R') { num = parseFloat(val);
        if (isNaN(val)) errors+='- '+nm+' must contain a number.\n';
        if (test.indexOf('inRange') != -1) { p=test.indexOf(':');
          min=test.substring(8,p); max=test.substring(p+1);
          if (num<min || max<num) errors+='- '+nm+' must contain a number between
'+min+' and '+max+'.\n';
    } } } else if (test.charAt(0) == 'R') errors += '- '+nm+' is required.\n'; }
  } if (errors) alert('The following error(s) occurred:\n'+errors);
  document.MM_returnValue = (errors == '');
}
//-->
</script>
<body bgcolor="black">
<p> </p>
<p align="center"><font color="white" size=8 align=center>voterregister!!!!!!!!!!!

<tr>
<td colspan="2">
<div align="center" >
```

```
<form name="voterinsert" action="con1.php" method="post">
<table    width="309"    height="309"    border="1"    align="center"    cellpadding="2"
cellspacing="0"bgcolor=brown>
<tr>
<td colspan="4">
</td>
</tr>
<tr>
<td width="116"><div align="right">Voterid</div></td>
<td         width="177"><input         name="Voterid"         type="text"
onBlur="MM_validateForm('Voterid','','R','Name','','R','Gender','','R','Age','','RinRange18:
99','City','','R');return document.MM_returnValue" /></td>
</tr>
<tr>
<td><div align="right">Name</div></td>
<td><input name="Name" type="text" /></td>
</tr>
<tr>
<tr>
<td width="116"><div align="right">Gender</div></td>
<td width="177"><input name="Gender" type="text" /></td>
</tr>
<tr>
<td width="116"><div align="right">Age</div></td>
<td width="177"><input name="Age" type="text" /></td>
</tr>
<tr>
<td width="116"><div align="right">City</div></td>
<td width="177"><input name="City" type="text" /></td>
</tr>
<td><div         align="center"><input         name=""         type="submit"
onClick="MM_validateForm('Voterid','','R','Name','','R','Gender','','R','Age','','RinRange1
8:99','City','','R');return document.MM_returnValue" value="login" /></td>
</tr>
</table>
</form>
</html>
RESULT  PAGE:
<?php
$con=mysqli_connect("localhost","root","mysql","mani");
// Check connection
if (mysqli_connect_errno())
 {
 echo "Failed to connect to MySQL: " . mysqli_connect_error();
 }
```

```php
$result = mysqli_query($con,"SELECT City,Elected,Count(*) FROM voterslist GROUP
BY City,Elected");

echo "<table border='1'>
<tr>
<th>City</th>
<th>Party</th>
<th>Total Number votes</th>
</tr>";

while($row = mysqli_fetch_array($result))
 {
 echo "<tr>";
 echo "<td>" . $row['City'] . "</td>";
 echo "<td>" . $row['Elected'] . "</td>";
 echo "<td>" . $row['Count(*)'] . "</td>";
 echo "</tr>";
 }
echo "</table>";

mysqli_close($con);
?>
```
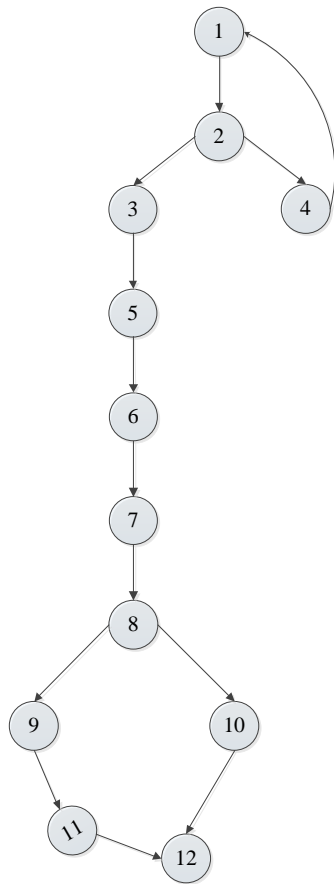
10.Testing:

Testing is the process of running a system with the intention of finding errors. Testing enhances the integrity of a system by detecting deviations in design and errors in the system. Testing aims at detecting error-prone areas. This helps in the prevention of errors in a system. Testing also adds value to the product by conforming to the user requirements.

The main purpose of testing is to detect errors and errorprone areas in a system. Testing must be thorough and well-planned. A partially tested system is as bad as an untested system. And the price of an untested and under-tested system is high.

The implementation is the final and important phase. It involves user-training, system testing in order to ensure successful running of the proposed system. The user tests the system and changes are made according to their needs. The testing involves the testing of the developed system using various kinds of data. While testing, errors are noted and correctness is the mode.
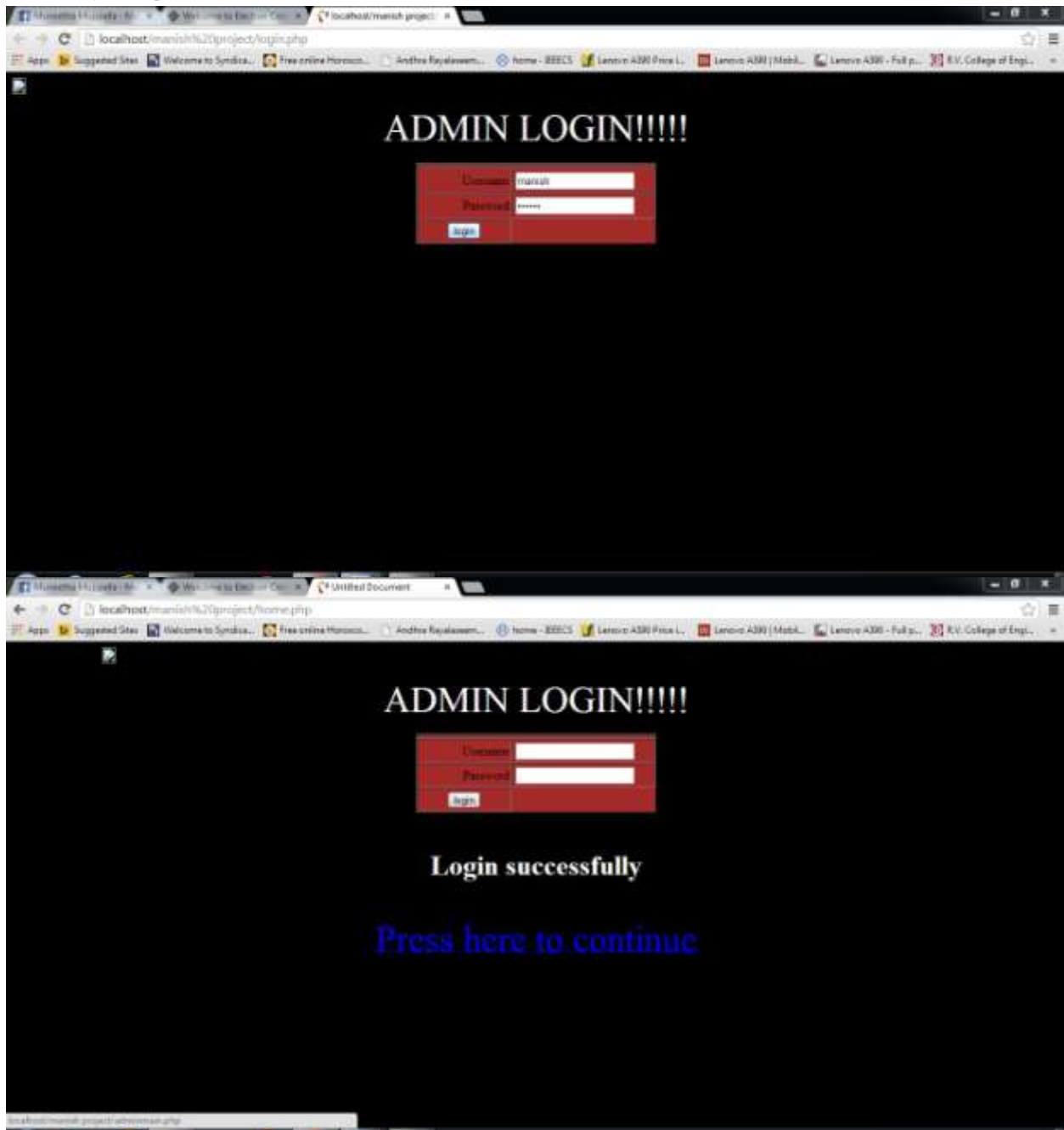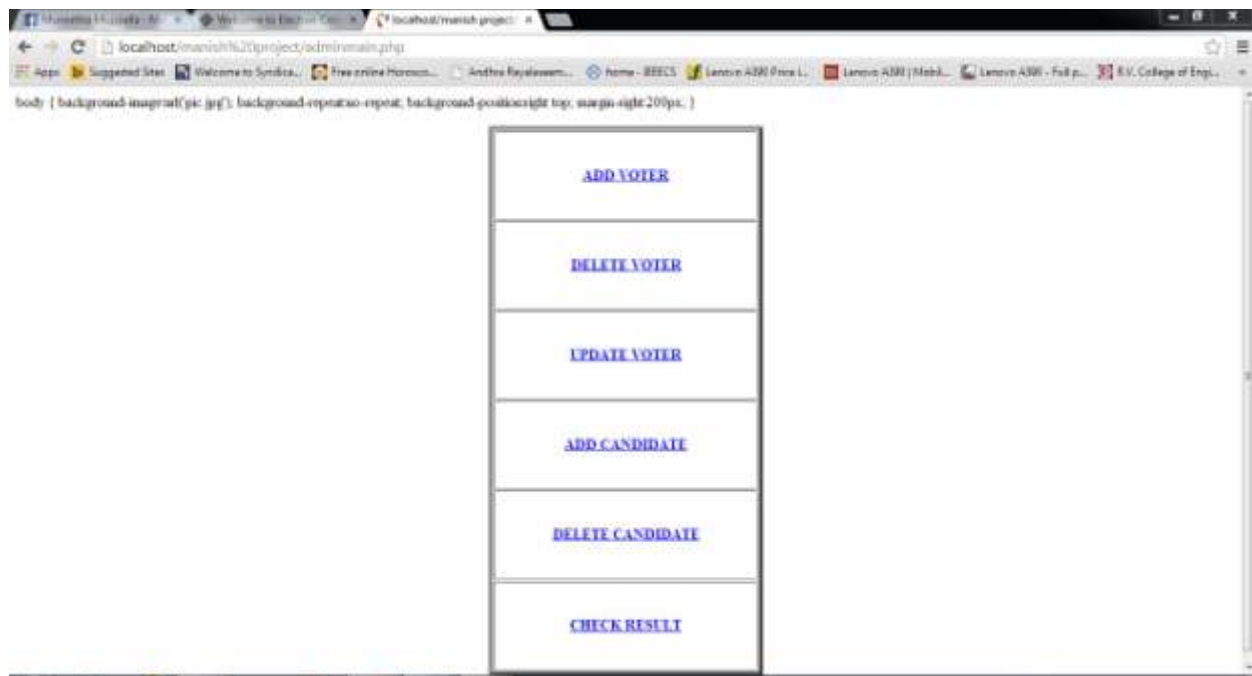
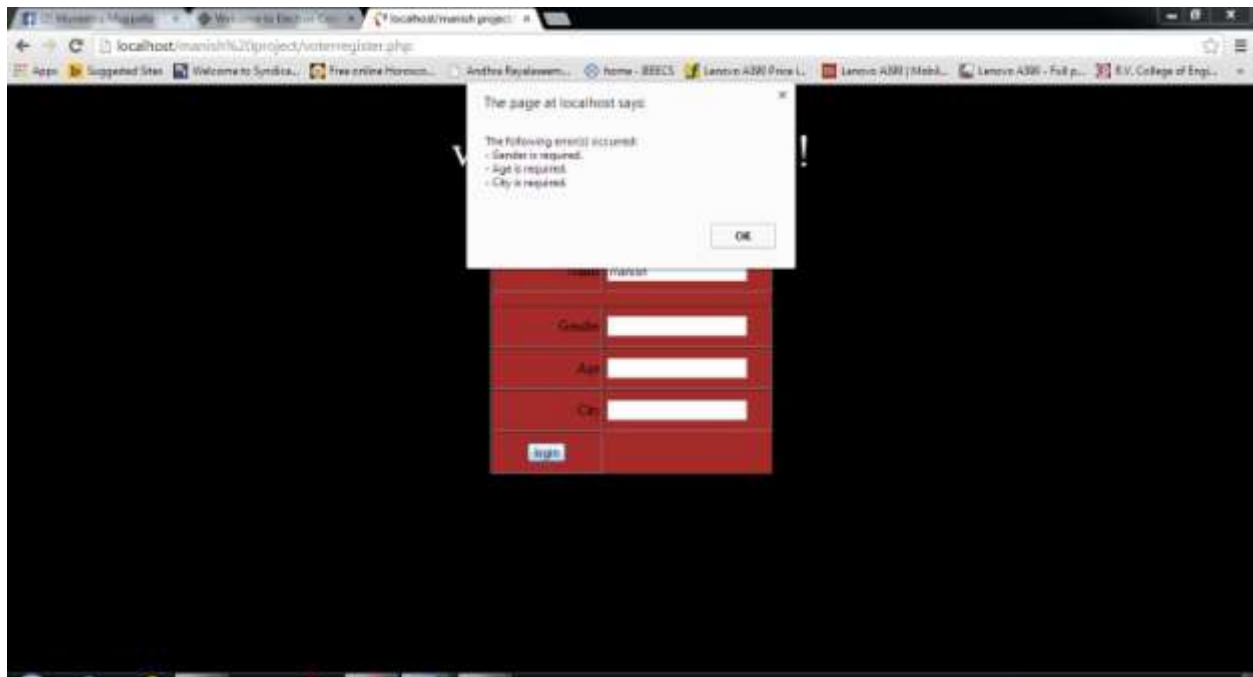**11.Screen shots:**
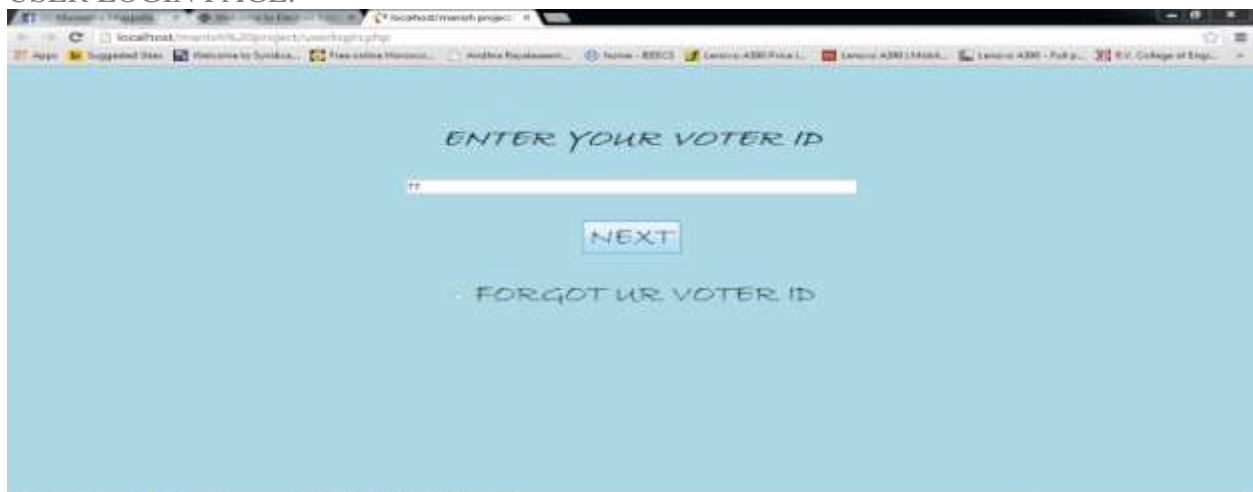
Starting page:

ADMIN PAGE

HOME PAGE OF ADMIN:

body { background-image:url('pic.jpg'); background-repeat:no-repeat; background-position:right top; margin-right:200px; }

VOTER   REGISTRATION PAGE:

FORM   VALIDATION:

USER LOGIN PAGE:

VERIFICATION PAGE:

LOGIN SUCCESSFUL PAGE:

POLLINGPAGE:
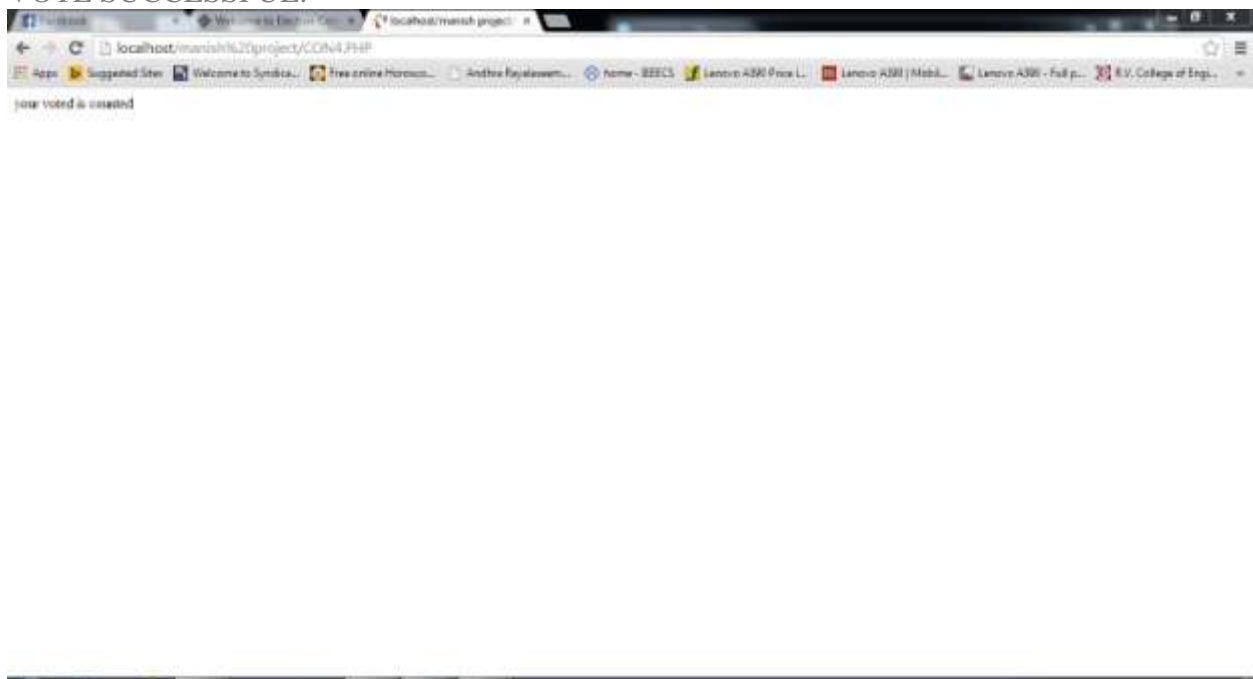
VOTE SUCCESSFUL:

DATABASE PAGE:

RESULTS PAGE:

12. Scope :

The supplementary specification applies to online voting system. This specification defines the non-functional requirement of the system such as:

Functionality:

Since it stand alone application, one or more user may use it at a time.

Usability:
> **Desktop interface**
> **Windows 98/2000/XP/Vista**

Reliability:
> The system is available only at the Election time.

Performance:
> Theperformance depends on hardware specification.

13.FutureEnhancment:

The Online Voting System(OVS) platform can be made more secure by using the following methods

- Password Changing
- Fingerprinting
- Cornea Detection

The password used by the user to vote is provided by the administrator. In the future the user can be given the privilege of changing the password. So it helps to increase the security of the system. The other two methods that can be used are cornea detection and fingerprinting. But here the problem is that it decreases the scope of the platform because these systems need some electronic components to implement. So it will avoid the users privilege to cast the votes at their fingertips. But it can guarantee that fake voting will be impossible.

14.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 votes of every party. There is a DATABASE which is maintained by the ELECTION COMMISION OF INDIA in which all the names of voter with complete information is stored.

In this user who is above 18 year'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 vary less time consuming. It is very easy to debug.

15.Rerfernces:

I have studying about PHP, MySQL etc.Dream weaver 8 was the main source in working of PHP.I have also used Apache Server and MySQL to store the data in database.

In the making of report i got a lot of help from websites

The sources are:-

- ✓ *www.php.net*
- ✓ *www.w3schools.com*
- ✓ *www.google.com*
- ✓ *www.youtube.com*   *(for videos)*

[2] I have also used some software:-

- ✓ AMPPS Server