DBMS | Project Report

Project **Voting Management System**

Group **22**

Members

- Avneesh Kumar
  IIB2019010
  Github 🔗
- Sandeep Sahu
  IIB2019005
  Github 🔗
- Vasu Gupta
  IIB2019003
  Github 🔗
- Ashish Tyagi
  IIB2019016
  Github 🔗

Languages and Framework

▼ **PHP**

We used PHP to communicate with our database. Also, it was easy for us to integrate PHP to our web app. There is advantage of using PHP, that there is no need to create a Node based backend server and RESTAPIs to communicate from fronted to our database. We can directly send SQL queries from frontend/User Interface, and they are executed at out database server.

▼ **MySQL**

The course itself aims to provide student a proper knowledge of SQL databases. So we used MySQL database in our project. We

specially avoided using NoSQL databases like MongoDB.

▼ **Bootstrap**

Its a CSS and JS framework for developing responsive and mobile first websites. It provides several built-in components such as navbar, sidebar, etc which fastens the development process.

▼ **HTML, CSS, and JS**

HTML, CSS, and JS are considered as basic building block of a good webpage. We used them to create our web app.

Features

▼ There are 3 users in our system

- Admin,
- Voter,
- Candidate.

▼ **Admin** has options to

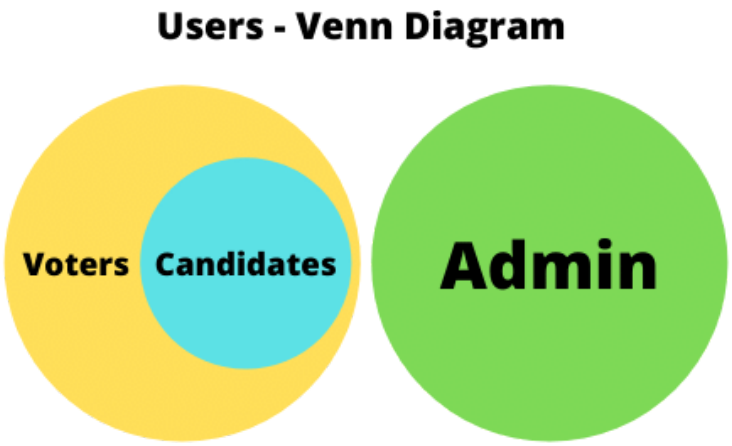
- Create a new election
- Delete an existing election
- Update the details of an existing election
- Delete account of a voter
- View list of voters
- View list of users that applied as candidates for some election
- Select/Deselect a candidate
- Turn live results on/off

▼ **Voter** has options to

- Create a new account, if not already existing

- Login to portal
- View list of upcoming elections
- Apply for elections as candidate
- Cast his/her valuable votes to some candidate
- See live results

Below is the venn diagram of users



How to setup?

Pre-requisites

Install following softwares before running this application:

- XAMPP
- MySQL Workbench (optional)

How to use?

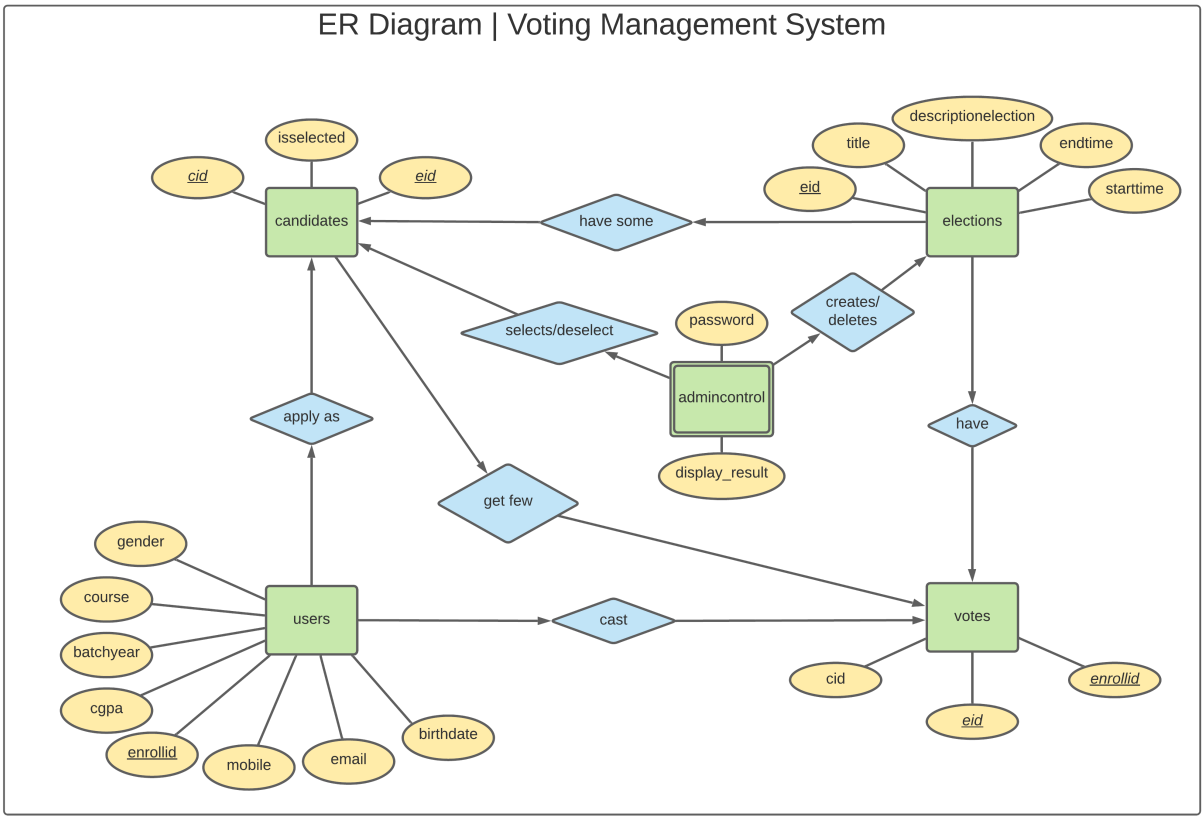
1. First step is to setup database at MySQL. You may find a folder `sql files` . It contains 2 sql files.

2. Execute `db_setup.sql` to create required tables and schemas in database.
3. Then execute `db_dummydata.sql` to fill tables with some sample data.
4. Copy the contents of `final_php` to `htdocs`. You will find `htdocs` at XAMPP installation folder.
5. Run `XAMPP` application.
6. Start `Apache Server` in it.
7. Open any browser of your choice and navigate to `localhost` using URL bar.

After successful installation and setup you can try different features as discussed above.

Documentation

ER diagram



Tables

users

Property	Details
Attributes	enrollid, name, birthdate, mobile, email, course, batchyear, gender, cgpa, password
Keys	enrollid (PK)
Functional Dependencies	{enrollid} -> {name, birthdate, mobile, email, course, batchyear, gender, cgpa, password}
Remarks	✅ Table is in BCNF.

candidates

Property	Details
Attributes	eid, cid, isselected
Keys	eid (FK), cid (FK)

Property	Details
Functional Dependencies	{eid, cid} -> {isselected}
Remarks	✅ Table is in BCNF.

elections

Property	Details
Attributes	eid, title, starttime, endtime, descriptionelection
Keys	eid (PK)
Functional Dependencies	{eid} -> {title, starttime, endtime, descriptionelection}
Remarks	✅ Table is in BCNF.

votes

Property	Details
Attributes	eid, enrollid, cid
Keys	eid (FK), enrollid (FK)
Functional Dependencies	{eid, enrollid} -> {cid}
Remarks	✅ Table is in BCNF.

admincontrol

Property	Details
Attributes	password, display_result
Keys	N/A
Functional Dependencies	N/A

Remarks about **admincontrol**

- This is a special table.
- It will only be containing 1 row.
- This will be used to
  - store password for admin user,

    - on/off the display of live results by admin.
- This is specially designed to store and hold a few specific attributes used by admin users.

> Thank you