1. User Table

**Table Name:** users   
Holds common details for voters and candidates.

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Constraints** | **Description** |
| id | INT | PRIMARY KEY, AUTO\_INCREMENT | Unique identifier for each user. |
| name | VARCHAR(100) | NOT NULL | Full name of the user. |
| dob | DATE | NOT NULL | Date of birth of the user |
| email | VARCHAR(100) | UNIQUE, NOT NULL | Email address of the user. |
| email\_verified | BOOLEAN | DEFAULT FALSE | Indicates if the email of the user is verified or not |
| password | VARCHAR(255) | NOT NULL | Encrypted password for authentication. |
| role | ENUM('voter', 'candidate') | NOT NULL | Role of the user (voter or candidate). |
| phone | VARCHAR(15) | NOT NULL | Contact number of the user. |
| address | VARCHAR(255) | NOT NULL | Residential address of the user. |
| ward\_id | INT | FOREIGN KEY REFERENCES wards(ward\_id) | Associated ward of the user. |
| approved\_by\_admin | BOOLEAN | DEFAULT FALSE | Indicates if admin has approved the user. |
| Updated\_at | TIMESTAMP | DEFAULT CURRENT\_ TIMESTAMP | Timestamp when the user was approved |
| Aadhaar number | VARCHAR(12) | NOT NULL UNIQUE | Aadhaar Number of user |
| Aadhaar\_file | VARCHAR(255) | NOT NULL | Aadhaar file of the user |
| created\_at | TIMESTAMP | DEFAULT CURRENT\_TIMESTAMP | Timestamp when the user was registered. |

#### **2. Wards Table**

**Table Name:** wards  
Defines the wards in the Panchayat.

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Constraints** | **Description** |
| ward\_id | INT | PRIMARY KEY | Unique identifier for each ward. |
| ward\_name | VARCHAR(100) | NOT NULL | Name of the ward. |

#### **3. Parties Table**

**Table Name:** parties  
Stores details about political parties.

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Constraints** | **Description** |
| party\_id | INT | PRIMARY KEY | Unique identifier for each party. |
| party\_name | VARCHAR(100) | UNIQUE, NOT NULL | Name of the political party. |
| party\_symbol | VARCHAR(255) | NOT NULL | Symbol/logo representing the party. |
| password | VARCHAR(255) | NOT NULL | Password for authentication |
| email | VARCHAR(255) | NOT NULL UNIQUE | email |

#### **4. Candidate Applications Table**

**Table Name:** candidate\_applications  
Tracks candidate applications for running in elections.

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Constraints** | **Description** |
| application\_id | INT | PRIMARY KEY, AUTO\_INCREMENT | Unique identifier for each application. |
| id | INT | FOREIGN KEY REFERENCES users(id) | ID of the candidate applying. |
| party\_id | INT | FOREIGN KEY REFERENCES parties(party\_id) | Party under which the candidate applies. |
| application\_form | TEXT | NOT NULL | Application form of the candiadate |
| ward\_id | INT | FOREIGN KEY REFERENCES wards(ward\_id) | Ward for which the candidate is applying. |
| application\_status | ENUM('pending', 'approved', 'rejected') | DEFAULT 'pending' | Status of the application. |
| submitted\_at | TIMESTAMP | DEFAULT CURRENT\_TIMESTAMP | Timestamp of application submission. |

#### **5. Contesting Candidates Table**

**Table Name:** contesting\_candidates  
Lists the final candidates contesting in the election.

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Constraints** | **Description** |
| contesting\_id | INT | PRIMARY KEY, AUTO\_INCREMENT | Unique identifier for contesting candidates. |
| id | INT | FOREIGN KEY REFERENCES users(id) | ID of the contesting candidate. |
| party\_id | INT | FOREIGN KEY REFERENCES parties(party\_id) | Party of the contesting candidate. |
| ward\_id | INT | FOREIGN KEY REFERENCES wards(ward\_id) | Ward the candidate is contesting in. |
| Election\_id | INT | FOREIGN KEY REFERENCES elections(election\_id) | Election for which candidate is contesting |
| added\_at | TIMESTAMP | DEFAULT CURRENT\_TIMESTAMP | Timestamp when the candidate was added. |

#### **6. Votes Table**

**Table Name:** votes  
Tracks votes cast by registered voters and candidates.

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Constraints** | **Description** |
| vote\_id | INT | PRIMARY KEY, AUTO\_INCREMENT | Unique identifier for each vote. |
| Election\_id | INT | FOREIGN KEY REFERENCES elections(election\_id) | Election for which candidate is contesting |
| id | INT | FOREIGN KEY REFERENCES users(id) | ID of the voter casting the vote. |
| contesting\_id | INT | FOREIGN KEY REFERENCES contesting\_candidates(contesting\_id) | ID of the candidate receiving the vote. |
| casted\_at | TIMESTAMP | DEFAULT CURRENT\_TIMESTAMP | Timestamp when the vote was cast. |

#### **7. Election Table**

**Table Name:** elections  
Defines the details of each election conducted.

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Constraints** | **Description** |
| election\_id | INT | PRIMARY KEY, AUTO\_INCREMENT | Unique identifier for each election. |
| Election\_title | VARCHAR(100) | NOT NULL | Name of the election. |
| Ward\_ids | TEXT |  | Ward ids for elections stored as a string |
| Description | TEXT |  | Description about the election |
| start\_date | DATE | NOT NULL | Start date of the election. |
| end\_date | DATE | NOT NULL | End date of the election. |
| status | ENUM('scheduled', 'ongoing', 'completed') | NOT NULL, DEFAULT 'scheduled' | Current status of the election. |
| created\_at | TIMESTAMP | DEFAULT CURRENT\_TIMESTAMP | Timestamp when the election was created. |

#### **8. Results Table**

**Table Name:** results  
Stores the results of each election for every ward.

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Constraints** | **Description** |
| result\_id | INT | PRIMARY KEY, AUTO\_INCREMENT | Unique identifier for each result entry. |
| election\_id | INT | FOREIGN KEY REFERENCES elections(election\_id) | ID of the related election. |
| ward\_id | INT | FOREIGN KEY REFERENCES wards(ward\_id) | Ward for which the result is recorded. |
| contesting\_id | INT | FOREIGN KEY REFERENCES contesting\_candidates(contesting\_id) | ID of the winning or losing candidate. |
| votes\_received | INT | NOT NULL | Total votes received by the candidate. |
| is\_winner | BOOLEAN | DEFAULT FALSE | Indicates if the candidate is the winner. |