Tamil Nadu Election Simulation System - Database Documentation

# Overview

The Tamil Nadu Election Simulation System is a MySQL-based database designed to simulate the election process for the Tamil Nadu state assembly. It includes entities like constituencies, political parties, candidates, voters, and results. The system is capable of running mock elections and analyzing outcomes through SQL views and stored procedures.

# Database Tables

## political\_parties

|  |  |  |
| --- | --- | --- |
| Column | Type | Description |
| party\_id | INT | Primary key, auto-incremented |
| party\_name | VARCHAR(100) | Unique party name |
| symbol | VARCHAR(50) | Party election symbol |
| cm\_candidate | VARCHAR(100) | Chief Minister candidate name |
| founding\_year | INT | Year the party was founded |
| headquarters | VARCHAR(100) | Party HQ location |
| ideology | VARCHAR(200) | Political ideology |

## constituencies

|  |  |  |
| --- | --- | --- |
| Column | Type | Description |
| constituency\_id | INT | Primary key, auto-incremented |
| constituency\_name | VARCHAR(100) | Unique constituency name |
| district | VARCHAR(50) | District name |
| reserved\_category | ENUM('GENERAL','SC','ST') | Reservation category |
| registered\_voters | INT | Number of registered voters |
| total\_polling\_stations | INT | Number of polling stations |

## wards

|  |  |  |
| --- | --- | --- |
| Column | Type | Description |
| ward\_id | INT | Primary key, auto-incremented |
| ward\_number | INT | Ward number within constituency |
| ward\_name | VARCHAR(100) | Ward name |
| constituency\_id | INT | Foreign key to constituencies |
| registered\_voters | INT | Number of registered voters |

## candidates

|  |  |  |
| --- | --- | --- |
| Column | Type | Description |
| candidate\_id | INT | Primary key, auto-incremented |
| candidate\_name | VARCHAR(100) | Candidate name |
| party\_name | VARCHAR(100) | Foreign key to political\_parties |
| constituency\_id | INT | Foreign key to constituencies |
| age | INT | Candidate age |
| gender | ENUM('Male','Female','Other') | Gender |
| education | VARCHAR(100) | Educational qualification |
| assets | DECIMAL(12,2) | Declared assets in rupees |
| criminal\_cases | INT | Number of criminal cases |
| is\_cm\_candidate | BOOLEAN | If candidate is CM nominee |

## polling\_stations

|  |  |  |
| --- | --- | --- |
| Column | Type | Description |
| polling\_station\_id | INT | Primary key, auto-incremented |
| polling\_station\_name | VARCHAR(100) | Polling station name |
| ward\_id | INT | Foreign key to wards |
| location | VARCHAR(100) | Physical location |
| registered\_voters | INT | Number of registered voters |

## voters

|  |  |  |
| --- | --- | --- |
| Column | Type | Description |
| voter\_id | VARCHAR(20) | Primary key (voter ID) |
| voter\_name | VARCHAR(100) | Voter name |
| age | INT | Voter age |
| gender | ENUM('Male','Female','Other') | Gender |
| address | VARCHAR(200) | Residential address |
| constituency\_id | INT | Foreign key to constituencies |
| ward\_id | INT | Foreign key to wards |
| polling\_station\_id | INT | Foreign key to polling\_stations |
| has\_voted | BOOLEAN | Whether voter has voted |
| voted\_party | VARCHAR(100) | Party voted for |
| voted\_timestamp | DATETIME | Timestamp of vote |

## election\_results

|  |  |  |
| --- | --- | --- |
| Column | Type | Description |
| result\_id | INT | Primary key, auto-incremented |
| constituency\_id | INT | Foreign key to constituencies |
| party\_name | VARCHAR(100) | Foreign key to political\_parties |
| votes\_received | INT | Votes received by party |
| vote\_percentage | DECIMAL(5,2) | Vote percentage |
| margin\_of\_victory | INT | Victory margin |
| is\_winner | BOOLEAN | Whether party won |

## ward\_results

|  |  |  |
| --- | --- | --- |
| Column | Type | Description |
| ward\_result\_id | INT | Primary key, auto-incremented |
| ward\_id | INT | Foreign key to wards |
| party\_name | VARCHAR(100) | Foreign key to political\_parties |
| votes\_received | INT | Votes received by party |
| vote\_percentage | DECIMAL(5,2) | Vote percentage |

## election\_summary

|  |  |  |
| --- | --- | --- |
| Column | Type | Description |
| party\_name | VARCHAR(100) | Primary key, party name |
| total\_votes | INT | Total votes received |
| vote\_percentage | DECIMAL(5,2) | Vote percentage |
| seats\_won | INT | Number of constituencies won |
| seats\_percentage | DECIMAL(5,2) | Seat percentage |