

# Tamil Nadu Election Simulation System - Database Documentation

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## 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

### 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
<b>votes_received</b>	INT	Votes received by party
<b>vote_percentage</b>	DECIMAL(5,2)	Vote percentage
<b>margin_of_victory</b>	INT	Victory margin
<b>is_winner</b>	BOOLEAN	Whether party won

#### ward\_results

Column	Type	Description
<b>ward_result_id</b>	INT	Primary key, auto-incremented
<b>ward_id</b>	INT	Foreign key to wards
<b>party_name</b>	VARCHAR(100)	Foreign key to political_parties
<b>votes_received</b>	INT	Votes received by party
<b>vote_percentage</b>	DECIMAL(5,2)	Vote percentage

#### election\_summary

Column	Type	Description
<b>party_name</b>	VARCHAR(100)	Primary key, party name
<b>total_votes</b>	INT	Total votes received
<b>vote_percentage</b>	DECIMAL(5,2)	Vote percentage
<b>seats_won</b>	INT	Number of constituencies won
<b>seats_percentage</b>	DECIMAL(5,2)	Seat percentage