

|  |
| --- |
| Business Template  **Political campaign** |
| **L**merchandise image |

Contents

[1 Business Description 3](#_Toc192952067)

[1.1 Business background 3](#_Toc192952068)

[1.2 Problems. Current Situation 3](#_Toc192952069)

[1.3 the Benefits of implementing a database. Project Vision 3](#_Toc192952070)

[2 Model description 3](#_Toc192952071)

[2.1 Definitions & Acronyms 3](#_Toc192952072)

[2.2 Logical Scheme 3](#_Toc192952073)

[2.3 Objects 4](#_Toc192952074)

# 

# Business Description

## Business background

An independent commission is responsible for collecting and managing data related to political elections. This includes information on voters, donors, campaign volunteers, events, finances, and survey results. The data is crucial for campaign analysis, decision-making, and ensuring transparency

## Problems. Current Situation

Currently, political campaign data is managed in fragmented systems, making it difficult to analyze and track key metrics effectively. The lack of an integrated database leads to inefficiencies in managing volunteers, tracking financial contributions, and analyzing voter engagement.

## the Benefits of implementing a database. Project Vision

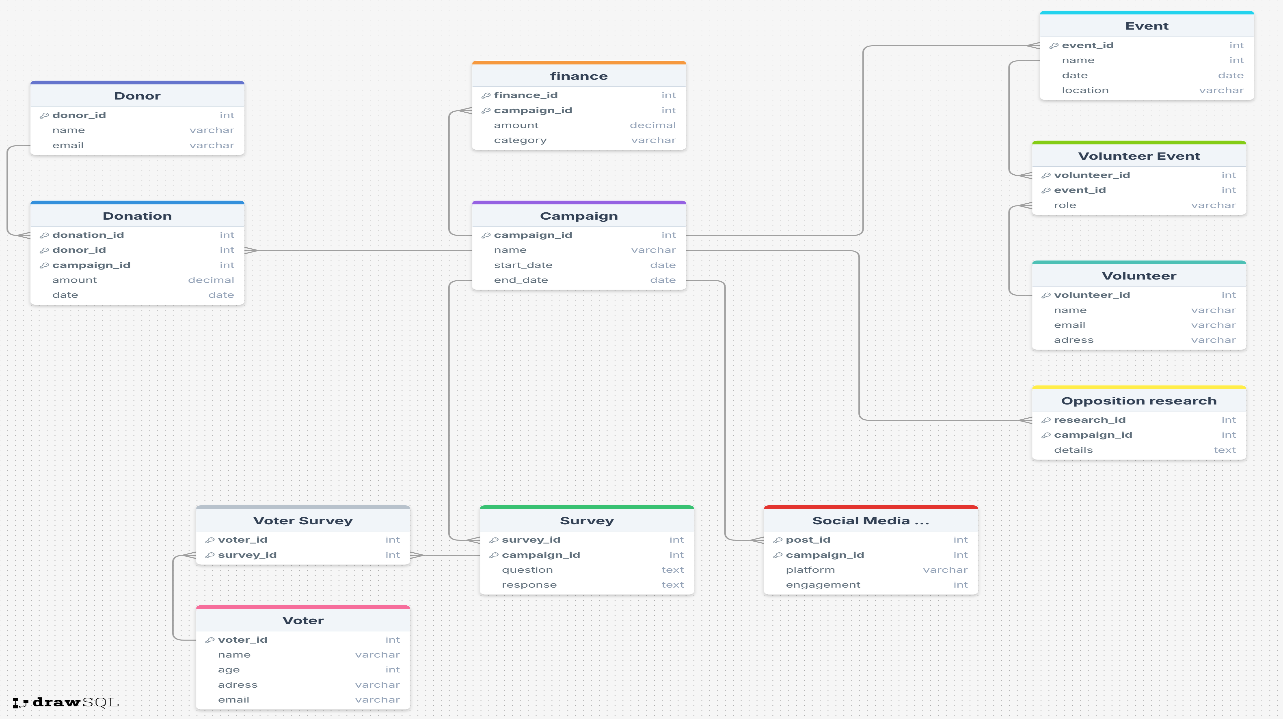
A well-structured database will allow for better data organization, improved tracking of campaign contributions, streamlined volunteer management, and enhanced analysis of campaign effectiveness. The system will provide real-time access to campaign-related data, ensuring a smooth and transparent election process.

# Model description

## Definitions & Acronyms

* **PK (Primary Key):** A unique identifier for records in a table.
* **FK (Foreign Key):** A reference to a primary key in another table.
* **Campaign:** A political effort to influence elections.
* **Donor:** An individual contributing funds to a campaign.
* **Survey:** A structured questionnaire to gather voter opinions.

## Logical Scheme



## Objects

**1. Donor Table**

The Donor table stores information about individuals or organizations that contribute donations to political campaigns.

|  |  |  |  |
| --- | --- | --- | --- |
| Table Name | Field name | Field Description | Data Type |
| Donor | Donor\_id | Unique identifier for each donor, PK | Int |
| name | Name of the donor | VARCHAR(255) |
| email | Email address of the donor | VARCHAR(255) |

One Donor can make multiple Donations (1:M relationship with Donation table).

Example with data

|  |  |  |
| --- | --- | --- |
| Donor\_id | name | email |
| 1 | Migle Skystimaite | miglesky@gmail.com |
| 2 | Jane doe | Jane.doe@gmail.com |

**2. Donation Table**

The Donation table records financial contributions made by donors to specific campaigns.

|  |  |  |  |
| --- | --- | --- | --- |
| Table Name | Field name | Field Description | Data Type |
| Donation | Donation\_id | Unique identifier for each donation, PK | Int |
| Donor\_id | Donor reference, FK | Int |
| Campaign\_id | Campaign reference, FK | Int |
| amount | Donation amount | Decimal |
| date | Date of donation | Date |

Each Donation is linked to one Donor (M:1 with Donor).

Each Donation is linked to one Campaign (M:1 with Campaign).

Example with data

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Donation\_id | Donor\_id | Campaign\_id | amount | date |
| 101 | 1 | 10 | 500.00 | 2024-01-15 |
| 102 | 2 | 11 | 300.00 | 2024-02-10 |

**3. Campaign Table**

The Campaign table represents a political campaign, storing details about the campaign and its timeline.

|  |  |  |  |
| --- | --- | --- | --- |
| Table Name | Field name | Field Description | Data Type |
| Campaign | Campaign\_id | Unique identifier for each campaign, PK | Int |
| Name | Name of the campaign | VARCHAR(255) |
| Start\_date | Start date of the campaign | Date |
| End\_Date | End date of the campaign | Date |

Campaign has multiple Donations (1:M with Donation).

Campaign has multiple Finance records (1:M with Finance).

Campaign has multiple Surveys (1:M with Survey).

Campaign has multiple Social Media Posts (1:M with Social Media Post).

Campaign has multiple Opposition Research records (1:M with Opposition Research).

Example with data

|  |  |  |  |
| --- | --- | --- | --- |
| Campaign\_id | Name | Start\_date | End\_date |
| 10 | 2024 Presidential | 2024-01-01 | 2024-12-01 |
| 11 | Governor Election | 2024-03-01 | 2024-11-01 |

**4. Finance table**

The Finance table tracks financial expenses related to a campaign.

|  |  |  |  |
| --- | --- | --- | --- |
| Table Name | Field name | Field Description | Data Type |
| Finance | Finance\_id | Unique identifier for each finance record, PK | Int |
| Campaign\_id | Campaign reference, FK | Int |
| Amount | Amount spent | Decimal |
| Category | Category of expense | VARCHAR(255) |

Each Finance record is linked to one Campaign (M:1 with Campaign).

Example with data

|  |  |  |  |
| --- | --- | --- | --- |
| Financce\_id | Campaign\_id | Amount | Category |
| 201 | 10 | 2000.00 | Advertising |
| 202 | 11 | 1500.00 | Logistics |

**5. Event table**

The Event table stores details about campaign-related events.

|  |  |  |  |
| --- | --- | --- | --- |
| Table Name | Field name | Field Description | Data Type |
| Event | Event\_id | Unique identifier for each event, PK | Int |
| Name | Name of the event | Int |
| Date | Date of the event | Date |
| Location | Location of the event | VARCHAR(255) |

Events have multiple Volunteers (M:M through Volunteer\_Event).

Example with data

|  |  |  |  |
| --- | --- | --- | --- |
| Finance\_id | Name | Date | Location |
| 301 | Rally in NY | 2024-05-20 | New York |
| 302 | Debate Night | 2024-06-15 | Washington |

**6. Volunteer Table**

The Volunteer table stores information about campaign volunteers..

|  |  |  |  |
| --- | --- | --- | --- |
| Table Name | Field name | Field Description | Data Type |
| Volunteer | Volunteer\_id | Unique identifier for each volunteer, PK | Int |
| Name | Name of the volunteer | VARCHAR(255) |
| Email | Email of the volunteer | VARCHAR(255) |
| Address | Address of the volunteer | VARCHAR(255) |

Volunteers participate in multiple Events (M:M through Volunteer\_Event).

Example with data

|  |  |  |  |
| --- | --- | --- | --- |
| Volunteer\_id | Name | Email | Address |
| 401 | Migle Skystimaite | miglesky@gmail.com | NY, USA |
| 402 | Mike Ross | mike@yahoo.com | LA, USA |

**7. Volunteer\_Event Table (Junction Table)**

This table connects volunteers to events they participate in.

|  |  |  |  |
| --- | --- | --- | --- |
| Table Name | Field name | Field Description | Data Type |
| Volunteer\_Event | Volunteer\_id | Unique identifier for each volunteer, FK | Int |
| Event\_id | Unique identifier for each event, FK | Int |
| Role | Role of the volunteer at the event | VARCHAR(255) |

Many-to-Many between Volunteer and Event.

Example with data

|  |  |  |
| --- | --- | --- |
| Volunteer\_id | Event\_id | Role |
| 401 | 301 | Speaker |
| 402 | 302 | Organizer |

**8. Survey Table**

The Survey table records survey questions and responses related to a campaign.

|  |  |  |  |
| --- | --- | --- | --- |
| Table Name | Field name | Field Description | Data Type |
| Survey | Survey\_id | Unique identifier for the survey, PK | Int |
| Campaign\_id | Unique identifier for the campaign, FK | Int |
| Question | Survey question | Text |
| Response | Response to the survey | Text |

One campaign can have multiple surveys (1:M).

A survey can be answered by multiple voters (M:M through VoterSurvey).

Example with data

|  |  |  |  |
| --- | --- | --- | --- |
| Survey\_id | Campaign\_id | Question | Response |
| 301 | 201 | Do you support clean energy policies? | Yes |
| 302 | 202 | Do you think education should be free? | No |

**9. VoterSurvey Table**

The VoterSurvey table tracks which voters participated in which surveys.

|  |  |  |  |
| --- | --- | --- | --- |
| Table Name | Field name | Field Description | Data Type |
| Voter Survey | Voter\_id | Unique identifier for the voter, FK | Int |
| Survey\_id | Unique identifier for the survey, FK | Int |

Many-to-Many between Voter and Survey.

Example with data

|  |  |
| --- | --- |
| Voter\_id | Survey\_id |
| 101 | 301 |
| 202 | 302 |

**10. Opposition Research Table**

The **OppositionResearch** table stores data about the campaign’s research on opposing candidates.

|  |  |  |  |
| --- | --- | --- | --- |
| Table Name | Field name | Field Description | Data Type |
| OppositionResearch | Research\_id | Unique identifier for the research, PK | Int |
| Campaign\_id | Unique identifier for the campaign, FK | Int |
| Details | Research details | Text |

One campaign can have multiple research records (1:M).

Example with data

|  |  |  |
| --- | --- | --- |
| Research\_id | Campaign\_id | Details |
| 501 | 201 | Competitor's policy review |
| 502 | 202 | Environmental impact analysis |

**11. SocialMedia Table**

The SocialMedia table tracks campaign-related social media activity.

|  |  |  |  |
| --- | --- | --- | --- |
| Table Name | Field name | Field Description | Data Type |
| SocialMedia | Post\_id | Unique identifier for each post (PK) | Int |
| Campaign\_id | Campaign associated with the post (FK) | Int |
| Platform | Social media platform (e.g., Instagram, Facebook) | VARCHAR(255) |
| Engagement | Number of interactions (likes, shares, comments) | Int |

One Campaign can have multiple SocialMedia posts (1:M).

Example with data

|  |  |  |  |
| --- | --- | --- | --- |
| Post\_id | Campaign\_id | Platform | Engagement |
| 1201 | 201 | Facebook | 150 |
| 1202 | 202 | Instagram | 300 |

**12. Voter Table**

The Voter table stores information about individuals eligible to vote in the campaign.

|  |  |  |  |
| --- | --- | --- | --- |
| Table Name | Field name | Field Description | Data Type |
| Voter | Voter\_id | Unique identifier for each post (PK) | Int |
| Name | Campaign associated with the post (FK) | VARCHAR(255) |
| Age | Social media platform (e.g., Instagram, Facebook) | Int |
| Address | Number of interactions (likes, shares, comments) | VARCHAR(255) |
| Email | Number of interactions (likes, shares, comments) | VARCHAR(255) |

A voter can participate in multiple surveys (M:M through **VoterSurvey**).

Example with data

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Voter\_id | Name | Age | Address | Email |
| 101 | John Doe | 35 | Chicago, IL | john@gmail.com |
| 102 | Luke Ham | 29 | New York, NY | haml@gmail.com |

**12. SocialMedia Table**

The SocialMedia table tracks campaign-related social media activity.

|  |  |  |  |
| --- | --- | --- | --- |
| Table Name | Field name | Field Description | Data Type |
| SocialMedia | Post\_id | Unique identifier for each post (PK) | Int |
| Campaign\_id | Campaign associated with the post (FK) | Int |
| Platform | Social media platform (e.g., Instagram, Facebook) | VARCHAR(255) |
| Engagement | Number of interactions (likes, shares, comments) | Int |

One Campaign can have multiple SocialMedia posts (1:M).

Example with data

|  |  |  |  |
| --- | --- | --- | --- |
| Post\_id | Campaign\_id | Platform | Engagement |
| 1201 | 201 | Facebook | 150 |
| 1202 | 202 | Instagram | 300 |