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| Business Template  **Political Campaign** |
| **Logo / Image** |

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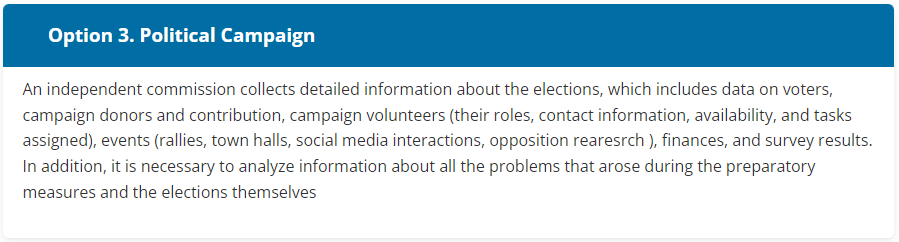
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# 

# Business Description

## Business background



## Problems. Current Situation

Fragmented Data: Voter, donor, volunteer, event, and social media data is scattered across different systems, making analysis slow and prone to errors.

Inconsistent Access: Volunteers may lack real-time updates, leading to communication issues and delays.

Unorganized Problem Tracking: Issues arising during the campaign are difficult to track and resolve due to decentralized information

## the Benefits of implementing a database. Project Vision

Centralized Data: A database would provide a single source of truth, improving access and communication for all stakeholders.

Efficient Analysis: Streamlined data will allow for faster and more accurate reporting on donations, volunteer activities, and event outcomes.

Better Problem Tracking: Centralized issue monitoring will enable quicker identification and resolution of campaign problems.

Enhanced Security: Sensitive information like finances and voter data will be more secure and accountable.

# Model description

## Logical Scheme

Obraz zawierający zrzut ekranu, linia, czarne, design

Opis wygenerowany automatycznie

## Objects

1. Elections

Table Description

The "elections" table holds information regarding different elections. Each record represents a single election for a specific position on a specific date.

|  |  |  |  |
| --- | --- | --- | --- |
| Table Name | Field name | Field Description | Data Type |
| Elections | id | Primary Key, NOT NULL | INT |
| date | Election date, NOT NULL | DATE |
| position | Position name, NOT NULL | VARCHAR(200) |

Comments on table relationships

The table uses the id field as a primary key. No foreign keys are involved, meaning this table is referenced elsewhere for further relations.

Example with data

|  |  |  |
| --- | --- | --- |
| **id** | **date** | **position** |
| 1 | 01.09.2023 | President |
| 2 | 15.05.2024 | Mayor |

1. **problems**

Table Description

The "problems" table records issues related to elections.

|  |  |  |  |
| --- | --- | --- | --- |
| Table Name | Field name | Field Description | Data Type |
| **problems** | id | Primary Key, uniquely identifies each problem | INT NOT NULL |
| election\_id | Foreign Key, links to the election table | INT NOT NULL |
| type | Type of problem (e.g., Technical, Voting Issue) | VARCHAR(126) NOT NULL |
|  | occurrence\_date | Date when the problem occurred | DATE |
|  | description | Detailed description of the problem | TEXT NOT NULL |

Comments on table relationships

The election\_id field is a foreign key referencing the id field in the "elections" table. This establishes a one-to-many relationship, meaning one election can have multiple problems. Each problem is linked to a specific election.

Example with data

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **id** | **election\_id** | **type** | **occurrence\_date** | **description** |
| 1 | 1 | Technical | 01.09.2023 | Server outage during voting |
| 2 | 2 | Voting Issue | 15.05.2024 | Voting machine malfunction |

1. surveys

Table Description

The "surveys" table contains information about surveys conducted.

|  |  |  |  |
| --- | --- | --- | --- |
| Table Name | Field name | Field Description | Data Type |
| surveys | id | Primary Key, uniquely identifies each survey | INT NOT NULL |
| election\_id | Foreign Key, links to the election table | INT NOT NULL |
| date | Date when the survey was conducted | DATE NOT NULL |
|  | responders\_number | Number of people who participated in the survey | INT NOT NULL |
|  | subject | Subject or title of the survey | VARCHAR(256) NOT NULL |
|  | result | Summary or outcome of the survey | TEXT NOT NULL |

Comments on table relationships

The election\_id field is a foreign key referencing the id field in the "elections" table, establishing a one-to-many relationship between elections and surveys. Each survey is linked to a specific election.

Example with data

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **id** | **election\_id** | **date** | **responders\_number** | **subject** | **result** |
| 1 | 1 | 02.09.2023 | 150 | Voter Satisfaction Survey | Majority satisfied with process |
| 2 | 2 | 16.05.2024 | 200 | Election System Feedback Survey | Suggestions for system improvemen |

1. candidatures

Table Description

The "candidatures" table records candidates' participation in specific elections.

|  |  |  |  |
| --- | --- | --- | --- |
| Table Name | Field name | Field Description | Data Type |
| candidatures | candidature\_id | Primary Key, uniquely identifies each candidature | INT NOT NULL |
| candidate\_id | Foreign Key, links to the candidate table | INT NOT NULL |
| election\_id | Foreign Key, links to the election table | INT NOT NULL |
|  | budget | Budget allocated for the candidature | INT NOT NULL |

Comments on table relationships

The candidate\_id field is a foreign key referencing the id field in the "candidates" table. The election\_id is a foreign key referencing the id field in the "elections" table, establishing many-to-many relationships between candidates and elections. Example with data

|  |  |  |  |
| --- | --- | --- | --- |
| **candidature\_id** | **candidate\_id** | **election\_id** | **budget** |
| 1 | 1 | 1 | 100000 |
| 2 | 2 | 2 | 150000 |

1. candidates

Table Description

The "candidates" table holds personal details of candidates running for elections, including their name, address, political\_party, and other relevant data.

|  |  |  |  |
| --- | --- | --- | --- |
| Table Name | Field name | Field Description | Data Type |
| candidates | id | Primary Key, uniquely identifies each candidate | INT NOT NULL |
| name | First name of the candidate | VARCHAR(50) NOT NULL |
| surname | Last name of the candidate | VARCHAR(50) NOT NULL |
|  | country | Country of the address | VARCHAR(216) NOT NULL |
|  | state | State or province of the address | VARCHAR(512) NOT NULL |
|  | city | City or town of the address | VARCHAR(512) NOT NULL |
|  | zip\_code | Postal code of the address | VARCHAR(30) NOT NULL |
|  | street | Street name in the address | VARCHAR(30) NOT NULL |
|  | building\_number | Building number in the address | VARCHAR(30) NOT NULL |
|  | apartment\_number | Apartment or suite number, if applicable | VARCHAR(30) NOT NULL |
|  | political\_party | The political party of the candidate | VARCHAR(50) NOT NULL |
|  | born\_date | Candidate's date of birth | DATE NOT NULL |
|  | net\_worth | Candidate's net worth in terms of assets | INT |
|  | gender | Gender of the candidate (M/F) | CHAR(1) NOT NULL |

Comments on table relationships

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **id** | **name** | **surname** | **country** | **state** | **city** | **zip\_code** | **street** | **building\_number** |  | **political\_party** | **born\_date** | **net\_worth** | **gender** |
| 1 | John | Doe | USA | California | San Jose | 95112 | Market St | 123 |  | Independent | 15.06.1975 | 5000000 | M |
| 2 | Jane | Smith | Poland | Mazovia | Warsaw | 00-001 | Piękna St | 15 |  | Green Party | 22.04.1980 | 3000000 | F |

The id field is referenced in the "candidatures" table to link candidates with their specific elections. Example with data

1. votes

Table Description

The "votes" table tracks votes cast by voters for specific candidatures.

|  |  |  |  |
| --- | --- | --- | --- |
| Table Name | Field name | Field Description | Data Type |
| votes | id\_voter | Foreign Key, links to the voter who cast the vote | INT NOT NULL |
| id\_candidature | Foreign Key, links to the candidature | INT NOT NUL |

Comments on table relationships

he id\_voter and id\_candidature are foreign keys that establish a many-to-many relationship between voters and candidatures.

Example with data

|  |  |
| --- | --- |
| **id\_voter** | **id\_candidature** |
| 1 | 1 |
| 2 | 2 |

1. costs

Table Description

The "costs" table records the various expenses related to a candidature

|  |  |  |  |
| --- | --- | --- | --- |
| Table Name | Field name | Field Description | Data Type |
| **costs** | id | Primary Key, uniquely identifies each cost record | INT NOT NULL |
| candidature\_id | Foreign Key, links to the candidature table | INT NOT NULL |
| cost | The monetary amount spent | INT NOT NULL |
|  | goal | The purpose or goal of the expenditure (e.g., Advertising) | VARCHAR(256) NOT NULL |
|  | description | A detailed description of the cost | TEXT NOT NULL |

Comments on table relationships

The candidature\_id field is a foreign key referencing the "candidatures" table. Example with data. Each expense is linked to a candidature.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **id** | **candidature\_id** | **cost** | **goal** | **description** |
| 1 | 1 | 50000 | Advertising | TV ads for campaign |
| 2 | 2 | 30000 | Campaign Events | Organized campaign rally |

1. candidate\_donor

Table Description

The "candidate\_donor" table links donors to candidates and records the support (financial or otherwise) given by donors to specific candidates.

|  |  |  |  |
| --- | --- | --- | --- |
| Table Name | Field name | Field Description | Data Type |
| candidate\_donor | candidate\_id | Foreign Key, links to the candidate table | INT NOT NULL |
| donor\_id | Foreign Key, links to the donor table | INT NOT NULL |
| support\_value | The value of support provided by the donor | INT NOT NULL |
|  | support\_description | Detailed description of the type of support | TEXT |

Comments on table relationships

 The candidate\_id field is a foreign key referencing the id field in the **candidates** table.

 The donor\_id field is a foreign key referencing the id field in the **donors** table.

 This table captures the many-to-many relationship between candidates and donors, as each candidate can have multiple donors and each donor can support multiple candidates Example with data

|  |  |  |  |
| --- | --- | --- | --- |
| **candidate\_id** | **donor\_id** | **support\_value** | **support\_description** |
| 1 | 1 | 10000 | Financial support for advertising |
| 2 | 2 | 20000 | Event sponsorship |

1. donors

Table Description

The "donors" table contains information about individuals or organizations that provide support to candidates. It includes their personal details (name, surname), whether they are private individuals (is\_private), and their net worth.

|  |  |  |  |
| --- | --- | --- | --- |
| Table Name | Field name | Field Description | Data Type |
| donors | id | Primary Key, uniquely identifies each donor | INT NOT NULL |
| name | Donor's first name | VARCHAR(50) NOT NULL |
| surname | Donor's last name | VARCHAR(50) |
|  | is\_private | Boolean flag indicating whether the donor is private or a public organization | BOOLEAN NOT NULL |
|  | net\_worth | Donor's net worth in terms of financial assets | INT |

Comments on table relationships

The id field is referenced in the **candidate\_donor** table to link donors with candidates.

Example with data

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **id** | **name** | **surname** | **is\_private** | **net\_worth** |
| 1 | Alice | Johnson | TRUE | 5000000 |
| 2 | Bob | Smith | FALSE | 10000000 |

1. voters

Table Description

The "voters" table holds personal information about voters, including their names, address, and demographic details such as net\_worth, children, and marital\_status.

|  |  |  |  |
| --- | --- | --- | --- |
| Table Name | Field name | Field Description | Data Type |
| voters | id | Primary Key, uniquely identifies each voter | INT NOT NULL |
| name | Voter's first name | VARCHAR(50) NOT NULL |
| surname | Voter's last name | VARCHAR(50) NOT NULL |
|  | country | Country of the address | VARCHAR(216) NOT NULL |
|  | state | State or province of the address | VARCHAR(512) NOT NULL |
|  | city | City or town of the address | VARCHAR(512) NOT NULL |
|  | zip\_code | Postal code of the address | VARCHAR(30) NOT NULL |
|  | street | Street name in the address | VARCHAR(30) NOT NULL |
|  | building\_number | Building number in the address | VARCHAR(30) NOT NULL |
|  | apartment\_number | Apartment or suite number, if applicable | VARCHAR(30) NOT NULL |
|  | born\_date | Voter's date of birth | DATE NOT NULL |
|  | net\_worth | Voter's net worth in terms of financial assets | INT |
|  | gender | Gender of the voter | CHAR(1) NOT NULL |
|  | children | Number of children the voter has | INT |
|  | marital\_status | Marital status of the voter (e.g., Single, Married) | VARCHAR(50) |

Comments on table relationships

The id field is referenced in the votes table to link voters to the votes they cast.

Example with data

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **id** | **name** | **surname** | **country** | **state** | **city** | **zip\_code** | **street** | **building\_number** | **apartment\_number** | **born\_date** | **net\_worth** | **gender** | **children** | **marital\_status** |
| 1 | John | Doe | USA | California | San Jose | 95112 | Market St | 123 | 12A | 01.05.1980 | 200000 | M | 2 | Married |
| 2 | Jane | Smith | Poland | Mazovia | Warsaw | 00-001 | Piękna St | 15 | 3 | 15.08.1990 | 300000 | F | 0 | Single |

1. volunteers

Table Description

The "volunteers" table stores personal information about volunteers, including their contact\_number, email, and the role.

|  |  |  |  |
| --- | --- | --- | --- |
| Table Name | Field name | Field Description | Data Type |
| volunteers | id | Primary Key, uniquely identifies each volunteer | INT NOT NULL |
| candidature\_id | Foreign Key, links to the candidature table | INT NOT NULL |
| name | First name of the volunteer | VARCHAR(50) NOT NULL |
|  | surname | Last name of the volunteer | VARCHAR(50) NOT NULL |
|  | contact\_number | Volunteer’s contact phone number | VARCHAR(50) |
|  | email | Volunteer’s email address | VARCHAR(256) NOT NULL |
|  | role | Role or position of the volunteer (e.g., Organizer, Helper) | VARCHAR(50) NOT NULL |

Comments on table relationships

The candidature\_id field is a foreign key that links the volunteer to a specific candidature in the candidatures table.

Example with data

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **id** | **candidature\_id** | **name** | **surname** | **contact\_number** | **email** | **role** |
| 1 | 1 | Alice | Johnson | 123-456-7890 | alice@example.com | Organizer |
| 2 | 2 | Bob | Smith | 987-654-3210 | bob@example.com | Helper |

1. volunteer\_task

Table Description

The "volunteer\_task" table establishes a relationship between volunteers and tasks. It records which volunteer is assigned to which task.

|  |  |  |  |
| --- | --- | --- | --- |
| Table Name | Field name | Field Description | Data Type |
| volunteer\_task | volunteer\_id | Foreign Key, links to the volunteer table | INT NOT NULL |
| task\_id | Foreign Key, links to the tasks table | INT NOT NULL |

Comments on table relationships

 The volunteer\_id is a foreign key that links to the **volunteers** table.

 The task\_id is a foreign key that links to the **tasks** table.

 This table represents a many-to-many relationship between volunteers and tasks.

Example with data

|  |  |
| --- | --- |
| **volunteer\_id** | **task\_id** |
| 1 | 1 |
| 2 | 2 |

1. Elections

Table Description

The "tasks" table contains information about tasks assigned to volunteers. Each task has a name, a detailed description, and a due\_date.

|  |  |  |  |
| --- | --- | --- | --- |
| Table Name | Field name | Field Description | Data Type |
| tasks | task\_id | Primary Key, uniquely identifies each task | INT NOT NULL |
| name | Task name or title | VARCHAR(256) NOT NULL |
| description | Detailed description of the task | TEXT NOT NULL |
|  | due\_date | Due date for the task | TIMESTAMP NOT NULL |

Comments on table relationships

The task\_id is referenced in the volunteer\_task table to assign tasks to volunteers.

Example with data

|  |  |  |  |
| --- | --- | --- | --- |
| **task\_id** | **name** | **description** | **due\_date** |
| 1 | Set up event venue | Prepare the venue for the event by 9 AM | 15.01.2024 08:00 |
| 2 | Coordinate guest check-in | Manage the check-in process for guests | 15.01.2024 10:00 |

1. volunteer\_availabilities

Table Description

The "volunteer\_availabilities" table records the availability of volunteers. It includes the date, start\_time, and end\_time of the availability.

|  |  |  |  |
| --- | --- | --- | --- |
| Table Name | Field name | Field Description | Data Type |
| volunteer\_availabilities | id | Primary Key, uniquely identifies each availability record | INT NOT NULL |
| volunteer\_id | Foreign Key, links to the volunteer table | INT NOT NULL |
| date | Date the volunteer is available | DATE NOT NULL |
| start\_time | The start time of availability | TIME NOT NULL |
| end\_time | The end time of availability | TIME NOT NULL |

Comments on table relationships

The volunteer\_id is a foreign key that links to the volunteers table.

Example with data

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **id** | **volunteer\_id** | **date** | **start\_time** | **end\_time** |
| 1 | 1 | 15.01.2024 | 08:00:00 | 12:00:00 |
| 2 | 2 | 15.01.2024 | 10:00:00 | 16:00:00 |

1. events

Table Description

The "events" table records details about events associated with candidatures. Each event has a name, description, date, and category.

|  |  |  |  |
| --- | --- | --- | --- |
| Table Name | Field name | Field Description | Data Type |
| events | id | Primary Key, uniquely identifies each event | INT NOT NULL |
| candidature\_id | Foreign Key, links to the candidature table | INT NOT NULL |
| name | Event name or title | VARCHAR(256) NOT NULL |
| description | Detailed description of the event | TEXT NOT NULL |
| date | Date the event takes place | DATE NOT NULL |
| category | Event category (e.g., Fundraiser, Rally) | VARCHAR(256) NOT NULL |

Comments on table relationships

The candidature\_id is a foreign key that links the event to the relevant candidature in the **candidatures** table.

Example with data

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **id** | **candidature\_id** | **name** | **description** | **date** | **category** |
| 1 | 1 | Fundraising Gala | A formal dinner for fundraising | 20.01.2024 | Fundraiser |
| 2 | 2 | Campaign Rally | Outdoor rally to gain public support | 15.02.2024 | Rally |