CS306 - DATABASE SYSTEMS: PROJECT 1ST PHASE

Government Administration and Legislative Tracking System

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I.   Title and the Description of the Project

Government Administration and Legislative Tracking System

The objective of this project is to develop a comprehensive database application that streamlines the management of government operations and legislative processes. This system will maintain detailed records of **governmental structures**, including **ministries**, appointed **ministers**, passed **legislation**, and their impact on various administrative functions. In a political context like Turkey's, it will track the tenure of government officials, the laws they pass, and the ministries' activities under their jurisdiction.
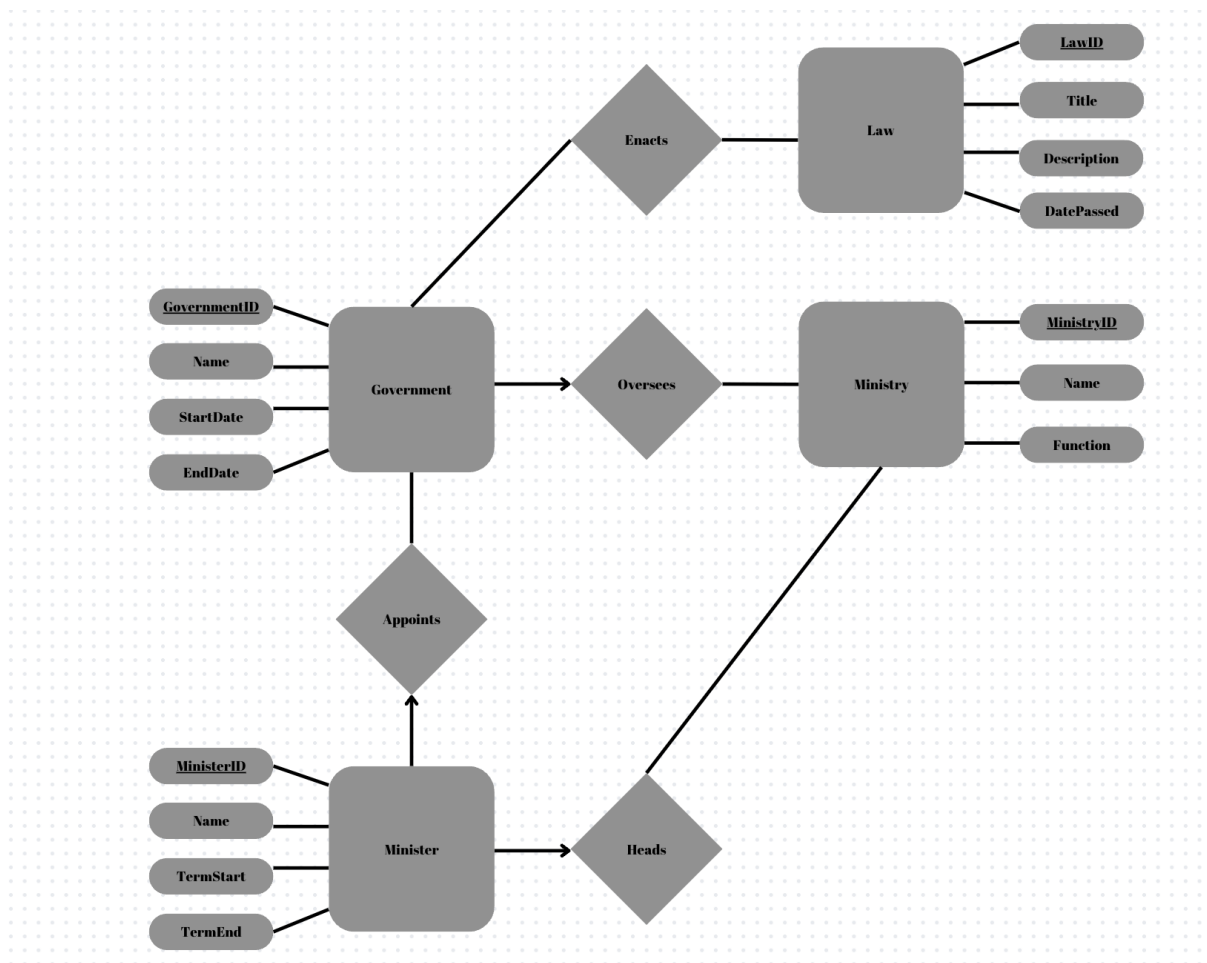
Each **Minister** will be uniquely identified by their **MinisterID,** with attributes including **Name**, **TermStart**, and **TermEnd**. They will be linked to Ministries, each with a unique **MinistryID**, **Name**, and Function, detailing the sectors they oversee. The **Government** entity, with attributes such as **GovernmentID, Name, StartDate,** and **EndDate,** represents the current administrative body and its term duration.

The **Law** entity will encapsulate legislation passed by the **Parliament**, with **LawID**, **Title**, **Description**, and **DatePassed** as attributes. This will allow for tracking the legal framework within which the government and its ministries operate.

The system will enable the matching of **Ministers** to **Ministries**, oversee the enactment of **Laws**, and provide a historical archive of governmental terms and legislative changes. With this setup, this project will serve as a vital tool for transparency, allowing citizens and officials alike to keep a detailed account of the government's activities and legislative output.

The relational data model will be designed to facilitate queries on ministerial terms, active laws, and the relation between government initiatives and legislative changes. It will provide the infrastructure necessary to support a dynamic and responsive government database system, crucial for modern governance and informed citizenship.

II.   ER Diagram

III. Relational Model

```
create table Government(
    GovernmentID char(10),
    Name varchar(255),
    StartDate date,
    EndDate date,
    primary key (GovernmentID)
);

create table Ministry(
    MinistryID char(10),
    Name varchar(255),
    Function text,
    GovernmentID char(10),
    primary key (MinistryID),
    foreign key (GovernmentID) references Government(GovernmentID) on update cascade
);

create table Minister(
    MinisterID char(10),
    Name varchar(255),
    TermStart date,
    TermEnd date,
    MinistryID char(10),
    GovernmentID char(10),
    primary key (MinisterID),
    foreign key (MinistryID) references Ministry(MinistryID) on update cascade,
    foreign key (GovernmentID) references Government(GovernmentID) on update cascade
);

create table Law(
    LawID char(10),
    Title varchar(255),
    Description text,
    DatePassed date,
    primary key (LawID)
);

create table GovernmentLaw(
    GovernmentID char(10),
    LawID char(10),
    primary key (GovernmentID, LawID),
    foreign key (GovernmentID) references Government(GovernmentID) on update cascade,
    foreign key (LawID) references Law(LawID) on update cascade
);
```

INSERT INTO Government VALUES
('GOV00001', '30th Republic Government', '2015-01-01', '2019-01-01'),
('GOV00002', '31st Republic Government', '2019-01-02', '2023-01-01'),
('GOV00003', '32nd Republic Government', '2023-01-02', NULL),
('GOV00004', '33rd Republic Government', '2027-01-01', NULL),
('GOV00005', '34th Republic Government', '2031-01-01', NULL),
('GOV00006', '35th Republic Government', '2035-01-01', NULL),
('GOV00007', '36th Republic Government', '2039-01-01', NULL),
('GOV00008', '37th Republic Government', '2043-01-01', NULL),
('GOV00009', '38th Republic Government', '2047-01-01', NULL),
('GOV00010', '39th Republic Government', '2051-01-01', NULL);

INSERT INTO Ministry VALUES
('MIN00001', 'Ministry of Education', 'Oversees public education and schools.', 'GOV00003'),
('MIN00002', 'Ministry of Health', 'Responsible for public health policy and administration.', 'GOV00003'),
('MIN00003', 'Ministry of Defense', 'Responsible for national defense and military.', 'GOV00003'),
('MIN00004', 'Ministry of Environment', 'Protection and sustainability of natural resources.', 'GOV00003'),
('MIN00005', 'Ministry of Culture', 'Promotion of cultural and historical heritage.', 'GOV00003'),
('MIN00006', 'Ministry of Finance', 'Management of national budget and finance.', 'GOV00003'),
('MIN00007', 'Ministry of Foreign Affairs', 'Manages international relations and diplomacy.', 'GOV00003'),
('MIN00008', 'Ministry of Justice', 'Administration of the judicial system.', 'GOV00003'),
('MIN00009', 'Ministry of Labor', 'Employment policies and labor market regulations.', 'GOV00003'),
('MIN00010', 'Ministry of Tourism', 'Development and promotion of tourism sector.', 'GOV00003');

INSERT INTO Minister VALUES
('MST00001', 'John Doe', '2023-01-02', NULL, 'MIN00001', 'GOV00003'),
('MST00002', 'Jane Smith', '2023-01-02', NULL, 'MIN00002', 'GOV00003'),
('MST00003', 'Ali Veli', '2023-01-02', NULL, 'MIN00003', 'GOV00003'),
('MST00004', 'Mary Johnson', '2023-01-02', NULL, 'MIN00004', 'GOV00003'),
('MST00005', 'Ahmet Yılmaz', '2023-01-02', NULL, 'MIN00005', 'GOV00003'),
('MST00006', 'Anna Brown', '2023-01-02', NULL, 'MIN00006', 'GOV00003'),
('MST00007', 'Mehmet Kaya', '2023-01-02', NULL, 'MIN00007', 'GOV00003'),
('MST00008', 'Susan Davis', '2023-01-02', NULL, 'MIN00008', 'GOV00003'),
('MST00009', 'Osman Ak', '2023-01-02', NULL, 'MIN00009', 'GOV00003'),
('MST00010', 'Linda Wilson', '2023-01-02', NULL, 'MIN00010', 'GOV00003');

INSERT INTO Law VALUES
('LAW00001', 'Education Reform Act', 'A comprehensive reform of the public education system.', '2023-02-15'),
('LAW00002', 'Healthcare Expansion Act', 'An act to expand public healthcare services.', '2023-03-21'),

('LAW00003', 'Defense Budget Act', 'An increase in the budget for national defense.', '2023-04-17'),
('LAW00004', 'Environmental Protection Law', 'New regulations for environmental protection.', '2023-05-20'),
('LAW00005', 'Cultural Heritage Act', 'An act to preserve cultural and historical sites.', '2023-06-11'),
('LAW00006', 'Fiscal Responsibility Law', 'Law to ensure balanced national budgets.', '2023-07-05'),
('LAW00007', 'Foreign Policy Act', 'Act for the management of international relations.', '2023-08-30'),
('LAW00008', 'Judicial Reform Act', 'Reform of the judicial system for efficiency.', '2023-09-21'),
('LAW00009', 'Labor Rights Act', 'New regulations to protect labor rights.', '2023-10-10'),
('LAW00010', 'Tourism Encouragement Law', 'Law to foster growth in the tourism industry.', '2023-11-15');

INSERT INTO GovernmentLaw VALUES
('GOV00003', 'LAW00001'),
('GOV00003', 'LAW00002'),
('GOV00003', 'LAW00003'),
('GOV00003', 'LAW00004'),
('GOV00003', 'LAW00005'),
('GOV00003', 'LAW00006'),
('GOV00003', 'LAW00007'),
('GOV00003', 'LAW00008'),
('GOV00003', 'LAW00009'),
('GOV00003', 'LAW00010');