-- Drop database if it exists, then create or alter it

IF EXISTS (SELECT \* FROM sys.databases WHERE name = 'eksamensprojekt')

BEGIN

DROP DATABASE eksamensprojekt;

END

GO

CREATE DATABASE eksamensprojekt;

GO

USE eksamensprojekt;

GO

# -- CREATE TABLES

## --Create ApplicationUser Table

CREATE TABLE ApplicationUser (

UserID INT PRIMARY KEY IDENTITY(1,1),

Username NVARCHAR(50) NOT NULL,

UserPasswordHash VARBINARY(MAX) NOT NULL,

UserEmail NVARCHAR(100),

OrganizationID INT NOT NULL,

CONSTRAINT FK\_ApplicationUser\_Organization FOREIGN KEY (OrganizationID) REFERENCES Organization(OrganizationID)

);

GO

## --Alter applicationUser to include ActiveUser

ALTER TABLE ApplicationUser

ADD ActiveUser BIT DEFAULT 0;

## -- Create City table

CREATE TABLE City (

Zipcode NVARCHAR(4) PRIMARY KEY,

City NVARCHAR(50)

);

GO

## -- Create Party table

CREATE TABLE Party (

PartyID INT PRIMARY KEY IDENTITY(1, 1),

PhoneNum NVARCHAR(8),

Email NVARCHAR(100),

PartyRole NVARCHAR(50)

);

GO

## -- Create Organization table

CREATE TABLE Organization (

OrganizationID INT PRIMARY KEY IDENTITY(1, 1),

OrganizationName NVARCHAR(100) NOT NULL,

PartyID INT NOT NULL,

FOREIGN KEY (PartyID) REFERENCES Party(PartyID)

);

GO

## -- Create Company table

CREATE TABLE Company (

CompanyID INT PRIMARY KEY IDENTITY(1, 1),

CompanyName NVARCHAR(100) NOT NULL,

PartyID INT NOT NULL,

FOREIGN KEY (PartyID) REFERENCES Party(PartyID)

);

GO

## -- Create Tenant table

CREATE TABLE Tenant (

TenantID INT PRIMARY KEY IDENTITY(1, 1),

PartyID INT NOT NULL,

FirstName NVARCHAR(50) NOT NULL,

LastName NVARCHAR(50) NOT NULL,

FOREIGN KEY (PartyID) REFERENCES Party(PartyID)

);

GO

## -- Create Address table

CREATE TABLE Address (

AddressID INT PRIMARY KEY IDENTITY(1, 1),

Street NVARCHAR(50),

Number NVARCHAR(10),

FloorNumber NVARCHAR(10),

Zipcode NVARCHAR(4) NOT NULL,

Country NVARCHAR(20),

IsStandardized BIT,

FOREIGN KEY (Zipcode) REFERENCES City(Zipcode)

);

GO

## -- Create Tenancy table

CREATE TABLE Tenancy (

TenancyID INT PRIMARY KEY IDENTITY(1, 1),

TenancyStatus NVARCHAR(50),

MoveInDate DATETIME,

MoveOutDate DATETIME,

SquareMeter INT,

Rent DECIMAL(10, 2),

Rooms INT,

BathRooms INT,

PetsAllowed BIT,

AddressID INT NOT NULL,

OrganizationID INT NOT NULL,

CompanyID INT,

IsDeleted BIT,

FOREIGN KEY (AddressID) REFERENCES Address(AddressID),

FOREIGN KEY (OrganizationID) REFERENCES Organization(OrganizationID),

FOREIGN KEY (CompanyID) REFERENCES Company(CompanyID)

);

GO

## -- Create TenancyTenant table (junction table between Tenancy and Tenant)

CREATE TABLE TenancyTenant (

TenancyID INT NOT NULL,

TenantID INT NOT NULL,

PRIMARY KEY (TenancyID, TenantID),

FOREIGN KEY (TenancyID) REFERENCES Tenancy(TenancyID),

FOREIGN KEY (TenantID) REFERENCES Tenant(TenantID)

);

GO

## -- Create History table

CREATE TABLE History (

ChangeID INT PRIMARY KEY IDENTITY(1, 1),

ChangeDate DATETIME DEFAULT GETDATE(),

ChangeOperation NVARCHAR(50),

FieldChanged NVARCHAR(50),

OldValue NVARCHAR(255),

NewValue NVARCHAR(255),

TenancyID INT NOT NULL,

UserID INT NOT NULL,

OrganizationID INT NOT NULL,

FOREIGN KEY (TenancyID) REFERENCES Tenancy(TenancyID),

FOREIGN KEY (OrganizationID) REFERENCES Organization(OrganizationID)

);

GO

## --Alter History table to include UserID as FK

DELETE FROM History;  
ALTER TABLE [dbo].[History] WITH CHECK ADD FOREIGN KEY([UserID]) REFERENCES [dbo].[ApplicationUser] ([UserID]);

# -- MOCK DATA

## -- Insert mock data for City (15 cities)

INSERT INTO City (Zipcode, City)

VALUES

('1600', 'København V'),

('2300', 'København S'),

('2900', 'Hellerup'),

('1850', 'Frederiksberg C'),

('2200', 'Nørrebro'),

('1150', 'Indre By'),

('2100', 'Østerbro'),

('5000', 'Odense C'),

('1550', 'København K'),

('2600', 'Glostrup'),

('3400', 'Hillerød'),

('1100', 'København K'),

('1260', 'København K'),

('4000', 'Roskilde'),

('6000', 'Kolding');

GO

## -- Insert data into Party table for tenants

INSERT INTO Party (PhoneNum, Email, PartyRole)

VALUES

('12345678', 'jens.hansen@example.com', 'Tenant'),

('23456789', 'mette.joergensen@example.com', 'Tenant'),

('34567890', 'kasper.pedersen@example.com', 'Tenant'),

('45678901', 'anne.nielsen@example.com', 'Tenant'),

('56789012', 'martin.andersen@example.com', 'Tenant'),

('67890123', 'sofie.christensen@example.com', 'Tenant'),

('78901234', 'lars.olsen@example.com', 'Tenant'),

('89012345', 'sarah.johansen@example.com', 'Tenant'),

('90123456', 'mads.eriksen@example.com', 'Tenant'),

('01234567', 'emma.laursen@example.com', 'Tenant'),

('12345679', 'clara.petersen@example.com', 'Tenant'),

('23456780', 'jonas.kristensen@example.com', 'Tenant'),

('34567891', 'julie.hansen@example.com', 'Tenant'),

('45678902', 'thomas.madsen@example.com', 'Tenant'),

('56789013', 'vibeke.jensen@example.com', 'Tenant');

GO

## -- Insert data into Tenant table and link to PartyID

INSERT INTO Tenant (PartyID, FirstName, LastName)

VALUES

(1, 'Jens', 'Hansen'),

(2, 'Mette', 'Jørgensen'),

(3, 'Kasper', 'Pedersen'),

(4, 'Anne', 'Nielsen'),

(5, 'Martin', 'Andersen'),

(6, 'Sofie', 'Christensen'),

(7, 'Lars', 'Olsen'),

(8, 'Sarah', 'Johansen'),

(9, 'Mads', 'Eriksen'),

(10, 'Emma', 'Laursen'),

(11, 'Clara', 'Petersen'),

(12, 'Jonas', 'Kristensen'),

(13, 'Julie', 'Hansen'),

(14, 'Thomas', 'Madsen'),

(15, 'Vibeke', 'Jensen');

GO

## -- Insert data for Organizations in Party

INSERT INTO Party (PhoneNum, Email, PartyRole)

VALUES

('87654321', 'org.contact@example.com', 'Organization');

GO

## -- Insert data into Organization table and link to PartyID

INSERT INTO Organization (OrganizationName, PartyID)

VALUES

('Danske Boligselskab ApS', 16);

GO

## -- Insert data for Company in Party

INSERT INTO Party (PhoneNum, Email, PartyRole)

VALUES

('87654322', 'company.contact@example.com', 'Company');

GO

## -- Insert data into Company table and link to PartyID

INSERT INTO Company (CompanyName, PartyID)

VALUES

('Test Company A/S', 17);

GO

## -- Insert standardized addresses (25 addresses)

INSERT INTO Address (Street, Number, FloorNumber, Zipcode, Country, IsStandardized)

VALUES

('Vesterbrogade', '100', '1', '1600', 'Denmark', 1),

('Amagerbrogade', '50', '2', '2300', 'Denmark', 1),

('Hovedgaden', '200', '3', '2900', 'Denmark', 1),

('Frederiksberg Alle', '10', NULL, '1850', 'Denmark', 1),

('Nørrebrogade', '5', '3', '2200', 'Denmark', 1),

('Strandvejen', '15', NULL, '2900', 'Denmark', 1),

('Købmagergade', '50', '1', '1150', 'Denmark', 1),

('Østerbrogade', '100', '2', '2100', 'Denmark', 1),

('Rådmandsgade', '30', '1', '2200', 'Denmark', 1),

('Glamsbjergvej', '40', NULL, '5000', 'Denmark', 1),

('Vester Voldgade', '120', '2', '1550', 'Denmark', 1),

('Roskildevej', '90', '1', '2600', 'Denmark', 1),

('Helsingørsgade', '100', '3', '3400', 'Denmark', 1),

('Tåsingegade', '25', '2', '1100', 'Denmark', 1),

('Bredgade', '60', NULL, '1260', 'Denmark', 1),

('Østerbrogade', '12', '2. tv.', '2100', 'Denmark', 1),

('Vesterbrogade', '56', '1. th.', '1150', 'Denmark', 1),

('Amagerbrogade', '101', NULL, '2300', 'Denmark', 1),

('Sundholmsgade', '2', '3. tv.', '1550', 'Denmark', 1),

('Nørrebrogade', '45', '4. th.', '2200', 'Denmark', 1),

('H.C. Andersens Boulevard', '27', '2. tv.', '1850', 'Denmark', 1),

('Teglholmsgade', '23', NULL, '2900', 'Denmark', 1),

('Ballerup Boulevard', '43', NULL, '5000', 'Denmark', 1),

('Møllebakken', '8', '1. tv.', '3400', 'Denmark', 1),

('Højbro Plads', '10', '5. tv.', '2600', 'Denmark', 1);

GO

## -- Insert mock data for Tenancy (15 tenancies)

INSERT INTO Tenancy (TenancyStatus, MoveInDate, MoveOutDate, SquareMeter, Rent, Rooms, BathRooms, PetsAllowed, AddressID, OrganizationID, CompanyID, IsDeleted)

VALUES

('Occupied', '2024-01-01', '2024-12-31', 50, 8000.00, 2, 1, 1, 1, 1, 1, 0),

('Vacant', '2024-03-01', NULL, 60, 9000.00, 3, 2, 0, 2, 1, 1, 0),

('UnderRenovation', '2024-06-01', '2024-09-01', 75, 12000.00, 4, 3, 1, 3, 1, 1, 0),

('Occupied', '2024-02-01', '2024-11-30', 80, 11000.00, 3, 2, 0, 4, 1, 1, 0),

('Occupied', '2024-03-01', '2024-12-31', 55, 8500.00, 2, 1, 1, 5, 1, 1, 0),

('Vacant', '2024-04-01', NULL, 70, 10000.00, 3, 2, 1, 6, 1, 1, 0),

('Occupied', '2024-05-01', '2024-10-31', 60, 9500.00, 3, 1, 0, 7, 1, 1, 0),

('Occupied', '2024-06-01', '2024-12-31', 100, 15000.00, 4, 2, 1, 8, 1, 1, 0),

('Vacant', '2024-07-01', NULL, 65, 10500.00, 3, 2, 0, 9, 1, 1, 0),

('Occupied', '2024-08-01', '2024-12-31', 80, 12000.00, 3, 2, 1, 10, 1, 1, 0),

('UnderRenovation', '2024-09-01', '2024-12-31', 50, 8000.00, 2, 1, 0, 11, 1, 1, 0),

('Occupied', '2024-10-01', '2024-12-31', 90, 13000.00, 4, 2, 1, 12, 1, 1, 0),

('Vacant', '2024-11-01', NULL, 55, 9000.00, 2, 1, 1, 13, 1, 1, 0),

('Occupied', '2024-12-01', '2024-12-31', 75, 11000.00, 3, 2, 0, 14, 1, 1, 0),

('Occupied', '2024-01-01', '2024-12-31', 65, 9500.00, 3, 1, 1, 15, 1, 1, 0);

GO

## -- Insert mock data for TenancyTenant (links between Tenancy and Tenant)

INSERT INTO TenancyTenant (TenancyID, TenantID)

VALUES

(1, 1), -- Tenancy 1 with Tenant 1

(1, 2), -- Tenancy 1 also with Tenant 2

(1, 3), -- Tenancy 1 also with Tenant 3

(2, 4), -- Tenancy 2 with Tenant 4

(3, 5), -- Tenancy 3 with Tenant 5

(3, 6), -- Tenancy 3 also with Tenant 6

(4, 7), -- Tenancy 4 with Tenant 7

(4, 8), -- Tenancy 4 also with Tenant 8

(5, 9), -- Tenancy 5 with Tenant 9

(5, 10), -- Tenancy 5 also with Tenant 10

(6, 11), -- Tenancy 6 with Tenant 11

(7, 12), -- Tenancy 7 with Tenant 12

(7, 13), -- Tenancy 7 also with Tenant 13

(8, 14), -- Tenancy 8 with Tenant 14

(8, 15), -- Tenancy 8 also with Tenant 15

(9, 1), -- Tenancy 9 with Tenant 1

(9, 2), -- Tenancy 9 also with Tenant 2

(10, 3), -- Tenancy 10 with Tenant 3

(10, 4); -- Tenancy 10 also with Tenant 4

GO

# -- INSERT INTO ApplicationUser

INSERT INTO ApplicationUser (Username, UserPasswordHash, UserEmail, OrganizationID)

VALUES

('peter.larsen', HASHBYTES('SHA2\_256', 'password123'), 'peter.larsen@danskeboligselskab.dk', 1),

('test.user', HASHBYTES('SHA2\_256', 'mysecurepassword'), 'test.user@example.com', 1),

('1', HASHBYTES('SHA2\_256', '1'), '1@example.com', 1);

GO