2) CREATE TABLE Minions(

Id INT PRIMARY KEY NOT NULL,

[Name] NVARCHAR(100) NOT NULL,

Age INT NOT NULL

)

CREATE TABLE Towns(

Id INT PRIMARY KEY NOT NULL,

[Name] NVARCHAR(100) NOT NULL

)

3) ALTER TABLE Minions

ADD TownsId INT NOT NULL

ALTER TABLE Minions

ADD CONSTRAINT FK\_Minions FOREIGN KEY (TownsId)

REFERENCES Towns(Id)

4) INSERT INTO Towns

VALUES ('Sofia'),

('Plovdiv'),

('Varna')

INSERT INTO Minions

VALUES('Kevin', 22, 1),

('Bob', 15, 3),

('Steward', NULL, 2)

5) DELETE FROM Minions

6) DROP TABLE dbo.Minions

GO

DROP TABLE dbo.Towns

GO

**7)** CREATE TABLE Peope (

Id INT PRIMARY KEY IDENTITY(1,1),

[Name] NVARCHAR(400) NOT NULL,

Picture VARBINARY(MAX),

Height DECIMAL(3,2),

[Weight] DECIMAL(5,2),

Gender NVARCHAR(1) NOT NULL,

Birthdate DATE NOT NULL,

Biography NVARCHAR(MAX)

)

8) CREATE TABLE Users(

Id BIGINT PRIMARY KEY IDENTITY(1,1),

Username VARCHAR(30) UNIQUE NOT NULL,

[Password] VARCHAR(26) NOT NULL,

ProfilePicture VARBINARY(900),

LastLoginTime DateTime2,

IsDeleted BIT

)

9) ALTER TABLE Users

DROP CONSTRAINT PK\_Id

ALTER TABLE Users

ADD PRIMARY KEY (Id, Username)

10) ALTER TABLE Users

ADD CONSTRAINT CHK\_UsernamePass CHECK ([Password] >= 5)

11) ALTER TABLE Users

ADD CONSTRAINT DF\_LastLoginTime

DEFAULT GETDATE() FOR LastLoginTime

12) ALTER TABLE Users

DROP CONSTRAINT PK\_Users

ALTER TABLE Users

ADD PRIMARY KEY (Id)

ALTER TABLE Users

ADD CONSTRAINT CHK\_UsernameLength CHECK (Username >= 3)

13) CREATE TABLE Directors (

Id INT PRIMARY KEY IDENTITY(1,1),

DirectorName NVARCHAR(50) NOT NULL,

Notes NVARCHAR(MAX)

)

GO

CREATE TABLE Genres (

Id INT PRIMARY KEY IDENTITY(1,1),

GenreName NVARCHAR(50) UNIQUE NOT NULL,

Notes NVARCHAR(MAX)

)

GO

CREATE TABLE Movies (

Id INT PRIMARY KEY IDENTITY(1,1),

Title NVARCHAR(50) NOT NULL,

DirectorId INT NOT NULL,

CopyrightYear INT,

[Length] INT,

GenreId INT NOT NULL,

CategoryId INT NOT NULL,

Rating INT,

Notes NVARCHAR(MAX)

CONSTRAINT FK\_DirectorMovie FOREIGN KEY (DirectorId)

REFERENCES Directors(Id)

)

ALTER TABLE Movies

ADD CONSTRAINT FK\_CategorieMovie

FOREIGN KEY (CategoryId) REFERENCES Categories(Id)

14) CREATE DATABASE CarRental

CREATE TABLE Categories (

[Id] INT PRIMARY KEY IDENTITY(1,1),

[CategoryName] NVARCHAR(50) NOT NULL UNIQUE,

[DailyRate] INT,

[WeeklyRate] INT,

[MonthlyRate] INT,

[WeekendRate] INT

)

CREATE TABLE Cars(

[Id] INT PRIMARY KEY IDENTITY(1,1),

[PlateNumber] NVARCHAR(50) NOT NULL,

[Manufacturer] NVARCHAR(50) NOT NULL,

[Model] NVARCHAR(50) NOT NULL,

[CarYear] INT,

[CategoryId] INT NOT NULL,

[Doors] INT,

[Picture] VARBINARY(MAX),

[Condition] NVARCHAR(MAX),

[Avaible] BIT

)

CREATE TABLE Employees (

[Id] INT PRIMARY KEY IDENTITY(1,1),

[FirstName] NVARCHAR(50) NOT NULL,

[LastName] NVARCHAR(50) NOT NULL,

[Title] NVARCHAR(50),

[Notes] NVARCHAR(MAX)

)

CREATE TABLE Customers (

[Id] INT PRIMARY KEY IDENTITY(1,1),

[DriverLicenceNumber] NVARCHAR(50) NOT NULL,

[FullName] NVARCHAR(50) NOT NULL,

[Address] NVARCHAR(50) NOT NULL,

[City] NVARCHAR(50),

[ZipCode] INT,

[Notes] NVARCHAR(MAX)

)

CREATE TABLE RentalOrder (

[Id] INT PRIMARY KEY IDENTITY(1,1),

[EmloyeeId] INT NOT NULL,

[CarId] INT NOT NULL,

[TankLevel] INT NOT NULL,

[KilometrageStart] INT,

[KilometrageEnd] INT,

[TotalKilometrage] INT,

[StartDate] DATETIME2 NOT NULL,

[EndDate] DATETIME2 NOT NULL,

[TotalDays] INT,

[RateApplied] SMALLINT,

[TaxRate] DECIMAL(7,2),

[OrderStatus] BIT,

[Notest] NVARCHAR(MAX)

)

ALTER TABLE RentalOrders

ADD CONSTRAINT FK\_EmployeeRentalOrder

FOREIGN KEY (EmployeeId) REFERENCES Employees(Id)

ALTER TABLE RentalOrders

ADD CONSTRAINT FK\_CarRentalOrder

FOREIGN KEY (CarId) REFERENCES Cars(Id)

GO

ALTER TABLE RentalOrders

ADD CONSTRAINT FK\_CustomerRentalOrder

FOREIGN KEY (CustomerId) REFERENCES Customers(Id)

GO

15) Hotel Database

CREATE TABLE Employees(

Id INT PRIMARY KEY IDENTITY(1,1),

FirstName NVARCHAR(50) NOT NULL,

LastName NVARCHAR(50) NOT NULL,

Title NVARCHAR(50),

Notes NVARCHAR(MAX)

)

CREATE TABLE Customers (

[AccountNumber] INT PRIMARY KEY NOT NULL,

[FirstName] NVARCHAR(50) NOT NULL,

[LastName] NVARCHAR(50) NOT NULL,

[PhoneNumber] INT NOT NULL,

[EmergencyName] NVARCHAR(50),

[EmergencyNumber] INT NOT NULL,

[Notes] NVARCHAR(MAX)

)

CREATE TABLE RoomStatus(

[RoomStatus] NVARCHAR(50) UNIQUE NOT NULL,

[Notes] NVARCHAR(MAX)

)

CREATE TABLE RoomTypes(

[RoomType] NVARCHAR(50) UNIQUE NOT NULL,

[Notes] NVARCHAR(50)

)

CREATE TABLE BedTypes(

[BedType] NVARCHAR(50) NOT NULL,

[Notes] NVARCHAR(MAX)

)

CREATE TABLE Payments (

[Id] INT PRIMARY KEY NOT NULL IDENTITY(1,1),

[EmployeeId] INT NOT NULL,

CONSTRAINT FK\_Employee\_Payment FOREIGN KEY (EmployeeId)

REFERENCES Employees(Id),

[PaymentDate] DATETIME2 NOT NULL,

[AccountNumber] INT NOT NULL,

[FirstDateOccupied] DATETIME2 NOT NULL,

[LastDateOccupied] DATETIME2 NOT NULL,

[TotalDays] INT NOT NULL,

[AmountCharged] MONEY NOT NULL,

[TaxRate] DECIMAL(5,3) NOT NULL,

[TaxAmount] DECIMAL(7,3) NOT NULL,

[PaymentTotal] MONEY NOT NULL,

[Notes] NVARCHAR(MAX),

)

CREATE TABLE Rooms(

[RoomNumber] INT NOT NULL IDENTITY(1,1),

[RoomType] NVARCHAR(50) NOT NULL,

FOREIGN KEY (RoomType) REFERENCES RoomTypes(RoomType),

[BedType] NVARCHAR(50) NOT NULL,

FOREIGN KEY (BedType) REFERENCES BedTypes(BedType),

[RoomStatus] NVARCHAR(50) NOT NULL,

FOREIGN KEY ([RoomStatus]) REFERENCES RoomStatus(RoomStatus),

[Rate] DECIMAL(2,1),

Notes NVARCHAR(MAX)

)

16) Create SoftUni Database

CREATE DATABASE SoftUni

CREATE TABLE Towns(

[Id] INT PRIMARY KEY IDENTITY(1,1),

[Name] NVARCHAR(50) NOT NULL

)

CREATE TABLE Addresses(

[Id] INT NOT NULL PRIMARY KEY IDENTITY(1,1),

[AddressText] NVARCHAR(50) NOT NULL,

[TownId] INT NOT NULL,

FOREIGN KEY (TownId) REFERENCES Towns(Id)

)

CREATE TABLE Departments(

[Id] INT NOT NULL PRIMARY KEY IDENTITY(1,1),

[Name] NVARCHAR(50) NOT NULL

)

CREATE TABLE Employees(

[Id] INT NOT NULL PRIMARY KEY IDENTITY(1,1),

[FirstName] NVARCHAR(50) NOT NULL,

[MiddleName] NVARCHAR(50),

[LastName] NVARCHAR(50) NOT NULL,

[JobTitle] NVARCHAR(50) NOT NULL,

[DepartmentId] INT NOT NULL,

FOREIGN KEY (DepartmentId) REFERENCES Departments(Id),

[HireDate] DATETIME2 NOT NULL,

[Salary] MONEY,

[AddressId] INT NOT NULL,

FOREIGN KEY (AddressId) REFERENCES Addresses(Id)

)

17) INSERT INTO Towns([Name])

VALUES ('Sofia'),

('Plovdiv'),

('Varna'),

('Burgas')

INSERT INTO Departments([Name])

VALUES ('Engineering'),

('Sales'),

('Marketing'),

('Software Development'),

('Quality Assurance')

18) SELECT \*

FROM [dbo].[Towns]

SELECT \*

FROM [dbo].[Departments]

SELECT \*

FROM [dbo].[Employees]

19) **Basic Select All Fields and Order Them**

SELECT \*

FROM [dbo].[Towns]

ORDER BY [Name] ASC

SELECT \*

FROM [dbo].[Departments]

ORDER BY [Name] ASC

SELECT \*

FROM [dbo].[Employees]

ORDER BY [Salary] DESC

20) **Basic Select Some Fields**

SELECT [Name]

FROM [dbo].[Towns]

ORDER BY [Name] ASC

SELECT [Name]

FROM [dbo].[Departments]

ORDER BY [Name] ASC

SELECT [FirstName], [LastName], [JobTitle], [Salary]

FROM [dbo].[Employees]

ORDER BY [Salary] DESC