-- Create the database

CREATE DATABASE ITCompanyDB;

-- Use the new database

USE ITCompanyDB;

-- Create Department table

CREATE TABLE Department (

DepartmentID INT PRIMARY KEY IDENTITY(1,1),

DepartmentName VARCHAR(100) NOT NULL

);

-- Create Employee table

CREATE TABLE Employee (

EmployeeID INT PRIMARY KEY IDENTITY(1,1),

FirstName VARCHAR(50),

LastName VARCHAR(50),

Email VARCHAR(100) UNIQUE,

Phone VARCHAR(15),

HireDate DATE,

JobTitle VARCHAR(100),

DepartmentID INT,

FOREIGN KEY (DepartmentID) REFERENCES Department(DepartmentID)

);

-- Create Project table

CREATE TABLE Project (

ProjectID INT PRIMARY KEY IDENTITY(1,1),

ProjectName VARCHAR(100),

StartDate DATE,

EndDate DATE

);

GO

-- Create Skill table

CREATE TABLE Skill (

SkillID INT PRIMARY KEY IDENTITY(1,1),

SkillName VARCHAR(100)

);

GO

-- Create EmployeeSkill table (Many-to-Many between Employee and Skill)

CREATE TABLE EmployeeSkill (

EmployeeID INT,

SkillID INT,

ProficiencyLevel VARCHAR(20),

PRIMARY KEY (EmployeeID, SkillID),

FOREIGN KEY (EmployeeID) REFERENCES Employee(EmployeeID),

FOREIGN KEY (SkillID) REFERENCES Skill(SkillID)

);

GO

-- Create ProjectAssignment table (Many-to-Many between Employee and Project)

CREATE TABLE ProjectAssignment (

EmployeeID INT,

ProjectID INT,

Role VARCHAR(100),

AllocationPercentage INT CHECK (AllocationPercentage BETWEEN 0 AND 100),

PRIMARY KEY (EmployeeID, ProjectID),

FOREIGN KEY (EmployeeID) REFERENCES Employee(EmployeeID),

FOREIGN KEY (ProjectID) REFERENCES Project(ProjectID)

);

GO