

Create company schema

```
CREATE TABLE EMPLOYEE(  
  Fname VARCHAR(15) NOT NULL,  
  Minit CHAR,  
  Lname VARCHAR(15) NOT NULL,  
  Ssn CHAR(9) NOT NULL,  
  Bdate DATE,  
  Address VARCHAR(30),  
  Sex CHAR,  
  Salary DECIMAL(10, 2),  
  Super_ssn CHAR(9),  
  Dno INT NOT NULL ,  
  PRIMARY KEY (Ssn)  
);  
  
CREATE TABLE DEPARTMENT(  
  Dname VARCHAR(15) NOT NULL,  
  Dnumber INT NOT NULL,  
  Mgr_ssn CHAR(9),  
  Mgr_start_date DATE,  
  PRIMARY KEY (Dnumber),  
  UNIQUE (Dname),  
  FOREIGN KEY (Mgr_ssn) REFERENCES EMPLOYEE(Ssn)  
);  
  
ALTER TABLE DBO.EMPLOYEE ADD FOREIGN KEY (Super_ssn) REFERENCES EMPLOYEE(Ssn);  
ALTER TABLE DBO.EMPLOYEE ADD FOREIGN KEY (Dno) REFERENCES DEPARTMENT(Dnumber);  
  
CREATE TABLE DEPT_LOCATIONS (  
  Dnumber INT NOT NULL ,  
  Dlocation VARCHAR(15) NOT NULL,  
  PRIMARY KEY (Dnumber, Dlocation),  
  FOREIGN KEY (Dnumber) REFERENCES DEPARTMENT(Dnumber)  
);  
  
CREATE TABLE PROJECT (  
  Pname VARCHAR(15) NOT NULL,  
  Pnumber INT NOT NULL,  
  Plocation VARCHAR(15),  
  Dnum INT NOT NULL,  
  PRIMARY KEY (Pnumber),  
  UNIQUE (Pname),  
  FOREIGN KEY (Dnum) REFERENCES DEPARTMENT(Dnumber)  
);  
  
CREATE TABLE WORKS_ON (  
  Essn CHAR(9) NOT NULL,
```

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Pno INT NOT NULL,
Hours DECIMAL(3, 1) NOT NULL,
PRIMARY KEY (Essn, Pno),
FOREIGN KEY (Essn) REFERENCES EMPLOYEE(Ssn),
FOREIGN KEY (Pno) REFERENCES PROJECT(Pnumber)
);

```

```

CREATE TABLE DEPENDENT(
Essn CHAR(9) NOT NULL,
Dependent_name VARCHAR(15) NOT NULL,
Sex CHAR,
Bdate DATE,
Relationship VARCHAR(8) ,
PRIMARY KEY (Essn, Dependent_name) ,
FOREIGN KEY (Essn) REFERENCES EMPLOYEE(Ssn)
);

```

create various tables and insert data in company database

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INSERT INTO `DEPARTMENT` (`Dname`, `Dnumber`, `Mgr_ssn`, `Mgr_start_date`)
VALUES
("Research","5",null, null),
("Administration","4",null, null),
("Headquarters","1",null, null);

```

```

INSERT INTO `EMPLOYEE` (`Fname`, `Minit`, `Lname`, `Ssn`, `Bdate`, `Address`,
`Sex`, `Salary`, `Super_ssn`, `Dno`) VALUES
("James","E","Borg","888665555","1937-11-10","450 Stone, Houston,
TX","M","55000.00",null,"1"),
("Franklin","T","Wong","333445555","1955-12-08","638 Voss, Houston,
TX","M","40000.00","888665555","5"),
("John","B","Smith","123456789","1965-01-09","731 Fondren, Houston,
TX","M","30000.00","333445555","5"),
("Jennifer","S","Wallace","987654321","1941-06-20","291 Berry, Bellaire,
TX","F","43000.00","888665555","4"),
("Alicia","J","Zelaya","999887777","1968-01-19","3321 Castle, Spring,
TX","F","25000.00","987654321","4"),
("Ramesh","K","Narayan","666884444","1962-09-15","975 Fire Oak, Humble,
TX","M","38000.00","333445555","5"),
("Joyce","A","English","453453453","1972-07-31","5631 Rice, Houston,
TX","F","25000.00","333445555","5"),
("Ahmad","V","Jabbar","987987987","1969-03-29","980 Dallas, Houston,
TX","M","25000.00","987654321","4");

```

```
UPDATE DEPARTMENT
SET Mgr_ssn = "333445555", Mgr_start_date = "1988-05-22"
WHERE Dnumber =5;
```

```
UPDATE DEPARTMENT
SET Mgr_ssn = "987654321", Mgr_start_date = "1995-01-01"
WHERE Dnumber =4;
```

```
UPDATE DEPARTMENT
SET Mgr_ssn = "888665555", Mgr_start_date = "1981-06-19"
WHERE Dnumber =1;
```

```
INSERT INTO `DEPT_LOCATIONS` (`Dnumber`, `Dlocation`) VALUES
("1","Houston"),
("4","Stafford"),
("5","Bellaire"),
("5","Sugarland"),
("5","Houston");
```

```
INSERT INTO `PROJECT` (`Pname`, `Pnumber`, `Plocation`, `Dnum`) VALUES
('ProductX', "1", 'Bellaire', "5"),
('ProductY', "2", "Sugarland", "5"),
('ProductZ', "3", "Houston", "5"),
('Computerization', "10", "Stafford", "4"),
('Reorganization', "20", "Houston", "1"),
('Newbenefits', "30", "Stafford", "4");
```

```
INSERT INTO `DEPENDENT` (`Essn`, `Dependent_name`, `Sex`, `Bdate`,
`Relationship`) VALUES
("333445555", "Alice", "F", "1986-04-05", "Daughter"),
("333445555", "Theodore", "M", "1983-10-25", "Son"),
("333445555", "Joy", "F", "1958-05-03", "Spouse"),
("987654321", "Abner", "M", "1942-02-28", "Spouse"),
("123456789", "Michael", "M", "1988-01-04", "Son"),
("123456789", "Alice", "F", "1988-12-30", "Daughter"),
("123456789", "Elizabeth", "F", "1967-05-05", "Spouse");
```

```
INSERT INTO `WORKS_ON` (`Essn`, `Pno`, `Hours`) VALUES
("123456789", "1", "32.5"),
("123456789", "2", "7.5"),
("666884444", "3", "40.0"),
("453453453", "1", "20.0"),
("453453453", "2", "20.0"),
("333445555", "2", "10.0"),
("333445555", "3", "10.0"),
```

```
("333445555", "10", "10.0"),  
("333445555", "20", "10.0"),  
("999887777", "30", "30.0"),  
("999887777", "10", "10.0"),  
("987987987", "10", "35.0"),  
("987987987", "30", "5.0"),  
("987654321", "30", "20.0"),  
("987654321", "20", "15.0"),  
("888665555", "20", "10.0");
```