

CREATE DATABASE INSTITUTION

USE INSTITUTION

```
CREATE TABLE Employee (  
    SSN INT PRIMARY KEY,  
    FName VARCHAR (30) NOT NULL,  
    LName VARCHAR (30) NOT NULL,  
    Gender VARCHAR (20),  
    Birthdate DATE,  
    DNum INT,  
    SuperID INT,  
    FOREIGN KEY (SuperID) REFERENCES Employee (SSN)  
);
```

```
INSERT INTO Employee (SSN, FName, LName, Gender, Birthdate, DNum, SuperID)  
VALUES ('111223333', 'David', 'Lee', 'M', '1988-11-30', 1, '0');
```

```
INSERT INTO Employee (SSN, FName, LName, Gender, Birthdate, DNum, SuperID)  
VALUES  
(111223333, 'David', 'Lee', 'M', '1988-11-30', 1, NULL),  
(356895432, 'Jane', 'Brown', 'F', '1980-01-01', 1, NULL),  
(874249645, 'Tom', 'Green', 'M', '1975-03-12', 1, NULL);
```

```
INSERT INTO Employee (SSN, FName, LName, Gender, Birthdate, DNum, SuperID)  
VALUES  
(222222222, 'Sara', 'White', 'F', '1993-02-10', 1, 356895432),  
(111111111, 'Ali', 'Khan', 'M', '1989-08-21', 1, 111223333),  
(555555555, 'Muna', 'Ramirez', 'F', '1990-12-03', 1, 874249645);
```

```
SELECT * FROM Employee
```

```
CREATE TABLE Department (
    DNum INT PRIMARY KEY,
    DName VARCHAR(50) NOT NULL,
    ManagerSSN INT,
    HIRE_DATE DATE,
    FOREIGN KEY (ManagerSSN) REFERENCES Employee (SSN),
);
```

```
INSERT INTO Department (DNum, DName, ManagerSSN, HIRE_DATE)
VALUES
(1, 'Marketing', 111223333, '2010-06-01'),
(2, 'HR', 111223333, '2012-03-15'),
(3, 'IT', 111223333, '2015-08-22');

SELECT * FROM Department
```

```
CREATE TABLE Locations (
    DNum INT,
    LocationName VARCHAR(50),
    primary key (DNum, LocationName),
    FOREIGN KEY (DNum) REFERENCES Department (DNum)
);
```

```
INSERT INTO Locations (DNum, LocationName)
VALUES
(1, 'Muscat'),
(2, 'Salalah'),
(3, 'Sur');

SELECT * FROM Locations
```

```
DELETE FROM Locations
WHERE LocationName = 'Salalah'
```

| | DNum | LocationName |
|---|------|--------------|
| 1 | 1 | Muscat |
| 2 | 3 | Sur |

```
CREATE TABLE Dependant (
    DName VARCHAR (20),
    Gender VARCHAR(20),
    Birthdate Date,
    SSN INT,
    FOREIGN KEY (SSN) REFERENCES Employee (SSN),
    PRIMARY KEY (DName, SSN)
);
```

```
INSERT INTO Dependant (DName, Gender, Birthdate, SSN)
VALUES
('Alya', 'F', '2015-05-10', 222222222),
('Fatma', 'F', '2012-11-23', 111111111),
('Ahmed', 'M', '2018-07-14', 555555555);

SELECT * FROM Dependant
```

```
CREATE TABLE Project(
    PNum INT PRIMARY KEY,
    PName VARCHAR(20) NOT NULL,
    City VARCHAR (20),
    LocationS VARCHAR (30),
    DNum INT,
    FOREIGN KEY (DNum) REFERENCES Department (DNum),
);
```

```
INSERT INTO Project (PNum, PName, City, LocationS, DNum)
VALUES
(101, 'Alpha', 'Muscat', 'Muscat Office', 1),
(102, 'Beta', 'Salalah', 'Salalah Branch', 2),
(103, 'Gamma', 'Sur', 'Sur Site', 3);

SELECT * FROM Project
```

```
UPDATE Project
SET City = 'Seeb'
WHERE PNum = 101;
```

| | PNum | PName | City | LocationS | DNum |
|---|------|-------|---------|----------------|------|
| 1 | 101 | Alpha | Seeb | Muscat Office | 1 |
| 2 | 102 | Beta | Salalah | Salalah Branch | 2 |
| 3 | 103 | Gamma | Sur | Sur Site | 3 |

```
CREATE TABLE Work (  
    SSN INT,  
    PNum INT,  
    WORKING_HOURS INT,  
    FOREIGN KEY (SSN) REFERENCES Employee (SSN),  
    FOREIGN KEY (PNum) REFERENCES Project (PNum),  
);  
  
INSERT INTO Work (SSN, PNum, WORKING_HOURS)  
VALUES  
('222222222', 101, 40);  
  
SELECT * FROM Work
```