

-- Pragya

-- 500119396

CREATE DATABASE Imn;

USE Imn;

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

);

INSERT INTO EMPLOYEE (Fname, Minit, Lname, Ssn, Bdate, Address, Sex, Salary, Super_ssn, Dno)
VALUES

('John', 'B', 'Smith', '123456789', '1965-01-09', '731 Fondren, Houston TX', 'M', 30000, '333445555',
5),

('Franklin', 'T', 'Wong', '333445555', '1965-12-08', '638 Voss, Houston TX', 'M', 40000, '888665555',
5),

('Alicia', 'J', 'Zelaya', '999887777', '1968-01-19', '3321 Castle, Spring TX', 'F', 25000, '987654321', 4),

('Jennifer', 'S', 'Wallace', '987654321', '1941-06-20', '291 Berry, Bellaire TX', 'F', 43000, '888665555',
4),

('Ramesh', 'K', 'Narayan', '666884444', '1962-09-15', '975 Fire Oak, Humble TX', 'M', 38000,
'333445555', 5),

('Joyce', 'A', 'English', '453453453', '1972-07-31', '5631 Rice, Houston TX', 'F', 25000, '333445555', 5),

('Ahmad', 'V', 'Jabbar', '987987987', '1969-03-29', '980 Dallas, Houston TX', 'M', 25000, '987654321',
4),

('James', 'E', 'Borg', '888665555', '1937-11-10', '450 Stone, Houston TX', 'M', 55000, NULL, 1);

```
CREATE TABLE DEPARTMENT (  
    Dname VARCHAR(15) NOT NULL,  
    Dnumber INT NOT NULL,  
    Mgr_ssn CHAR(9) NOT NULL,  
    Mgr_start_date DATE  
);  
  
INSERT INTO DEPARTMENT (Dname, Dnumber, Mgr_ssn, Mgr_start_date) VALUES  
( 'Research', 5, '333445555', '1988-05-22'),  
( 'Administration', 4, '987654321', '1995-01-01'),  
( 'Headquarters', 1, '888665555', '1981-06-19');
```

```
CREATE TABLE PROJECT (  
    Pname VARCHAR(15) NOT NULL,  
    Pnumber INT NOT NULL,  
    Plocation VARCHAR(15),  
    Dnum INT NOT NULL  
);  
  
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);
```

```
CREATE TABLE WORKS_ON (  
    Essn CHAR(9) NOT NULL,  
    Pno INT NOT NULL,  
    Hours DECIMAL(3,1) NOT NULL  
);  
  
INSERT INTO WORKS_ON (Essn, Pno, Hours) VALUES
```

('123456789', 1, 32.5),

('123456789', 2, 7.5),

('666884444', 3, 40.0),

('453453453', 1, 20.0);

```
mysql> SELECT * FROM EMPLOYEE;
```

Fname	Minit	Lname	Ssn	Bdate	Address	Sex	Salary	Super_ssn	Dno
John	B	Smith	123456789	1965-01-09	731 Fondren, Houston TX	M	30000.00	333445555	5
Franklin	T	Wong	333445555	1965-12-08	638 Voss, Houston TX	M	40000.00	888665555	5
Alicia	J	Zelaya	999887777	1968-01-19	3321 Castle, Spring TX	F	25000.00	987654321	4
Jennifer	S	Wallace	987654321	1941-06-20	291 Berry, Bellaire TX	F	43000.00	888665555	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
James	E	Borg	888665555	1937-11-10	450 Stone, Houston TX	M	55000.00	NULL	1

8 rows in set (0.00 sec)

```
mysql> SELECT * FROM PROJECT;
```

Pname	Pnumber	Plocation	Dnum
ProductX	1	Bellaire	5
ProductY	2	Sugarland	5
ProductZ	3	Houston	5
Computerization	10	Stafford	4
Reorganization	20	Houston	1
Newbenefits	30	Stafford	4

6 rows in set (0.00 sec)

```
mysql> SELECT E.Fname, E.Lname, D.Dname
-> FROM EMPLOYEE E
-> JOIN DEPARTMENT D ON E.Dno = D.Dnumber;
```

Fname	Lname	Dname
John	Smith	Research
Franklin	Wong	Research
Alicia	Zelaya	Administration
Jennifer	Wallace	Administration
Ramesh	Narayan	Research
Joyce	English	Research
Ahmad	Jabbar	Administration
James	Borg	Headquarters

8 rows in set (0.00 sec)

```
mysql> SELECT E.Fname, E.Lname, P.Pname
-> FROM WORKS_ON W
-> JOIN EMPLOYEE E ON W.Essn = E.Ssn
-> JOIN PROJECT P ON W.Pno = P.Pnumber;
```

Fname	Lname	Pname
John	Smith	ProductY
John	Smith	ProductX
Ramesh	Narayan	ProductZ
Joyce	English	ProductX

4 rows in set (0.01 sec)

```
mysql> SELECT P.Pname, SUM(W.Hours) AS Total_Hours
-> FROM WORKS_ON W
-> JOIN PROJECT P ON W.Pno = P.Pnumber
-> GROUP BY P.Pname;
```

Pname	Total_Hours
ProductX	52.5
ProductY	7.5
ProductZ	40.0

3 rows in set (0.01 sec)

```
mysql> SELECT D.Dname, E.Fname, E.Lname, D.Mgr_start_date
-> FROM DEPARTMENT D
-> JOIN EMPLOYEE E ON D.Mgr_ssn = E.Ssn;
```

Dname	Fname	Lname	Mgr_start_date
Research	Franklin	Wong	1988-05-22
Administration	Jennifer	Wallace	1995-01-01
Headquarters	James	Borg	1981-06-19

3 rows in set (0.00 sec)

```
mysql> SELECT Fname, Lname
-> FROM EMPLOYEE
-> WHERE Super_ssn IS NULL;
```

Fname	Lname
James	Borg

```
1 row in set (0.00 sec)
```

```
mysql> SELECT Pname, Pnumber
-> FROM PROJECT
-> WHERE Plocation = 'Stafford';
```

Pname	Pnumber
Computerization	10
Newbenefits	30

```
2 rows in set (0.00 sec)
```