

CSE2007 (DBMS) Lab-1

KHAN MOHD OWAIS RAZA

20BCD7138

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-- KHAN MOHD OWAIS RAZA
-- 20BCD7138
-- DBMS LAB-1
CREATE TABLE EMPLOYEE
(
  FNAME VARCHAR(30) NOT NULL,
  MINIT VARCHAR(30) NOT NULL,
  LNAME VARCHAR(30) NOT NULL,
  SSN INT NOT NULL,
  BDATE DATE NOT NULL,
  ADDRESS VARCHAR(50) NOT NULL,
  SEX CHAR NOT NULL,
  SALARY INT NOT NULL,
  SUPERSSN INT,
  DNO INT NOT NULL
);
INSERT INTO EMPLOYEE
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', '1968-07-19' , '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', 'F', '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');
INSERT INTO EMPLOYEE
```

```

(FNAME, MINIT, LNAME, SSN, BDATE, ADDRESS, SEX, SALARY, DNO)
VALUES
('James', 'E', 'Borg', '888665555', '1937-11-10' , '450 Stone,
Houston, TX', 'M', '55000', '1');
CREATE TABLE DEPT_LOCATIONS
(
DNUMBER INT NOT NULL,
DLOCATION VARCHAR(30) NOT NULL
);
INSERT INTO DEPT_LOCATIONS
VALUES
('1', 'Houston'),
('4', 'Stafford'),
('5', 'Bellaire'),
('5', 'Sugarlane'),
('5', 'Houston');
CREATE TABLE DEPARTMENT
(
DNAME VARCHAR(30) NOT NULL,
DNUMBER INT NOT NULL,
MGRSSN INT NOT NULL,
MGRSTARTDATE DATE NOT NULL
);
INSERT INTO DEPARTMENT
VALUES
('Finance', '5', '333445555', '1988-05-22'),
('Administration', '4', '987654321', '1995-01-01'),
('Headquarters', '1', '888665555', '1981-06-19');
CREATE TABLE PROJECT
(
PNAME VARCHAR(30) NOT NULL,
PNUMBER INT NOT NULL,
PLOCATION VARCHAR(30) NOT NULL,
DNUM INT NOT NULL
);
INSERT INTO PROJECT
VALUES
('ProductX', '1', 'Bellaire', '5'),
('ProductY', '2', 'Sugarland', '5'),
('ProductZ', '3', 'Houston', '5'),
('Computerization', '10', 'Stafford', '4'),
('Reorganization', '20', 'Houston', '1'),

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('Newbenefits', '30', 'Stafford', '4');
CREATE TABLE WORKS_ON
(
  ESSN INT NOT NULL,
  PNO INT NOT NULL,
  HOURS DECIMAL(3,1)
);
INSERT INTO WORKS_ON
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, null);
CREATE TABLE DEPENDENT
(
  ESSN INT NOT NULL,
  DEPENDENT_NAME VARCHAR(30) NOT NULL,
  SEX CHAR NOT NULL,
  BDATE DATE NOT NULL,
  RELATIONSHIP VARCHAR(30) NOT NULL
);
INSERT INTO DEPENDENT
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, 'Micheal', 'M', '1988-01-04', 'Son'),
(123456789, 'Alice', 'F', '1988-12-30', 'Daughter'),
(123456789, 'Elizabeth', 'F', '1967-05-05', 'Spouse');

```

```
SELECT *
FROM EMPLOYEE;
SELECT *
FROM DEPT_LOCATIONS;
SELECT *
FROM DEPARTMENT;
SELECT *
FROM WORKS_ON;
SELECT *
FROM PROJECT;
SELECT *
FROM DEPENDENT;
```

```
SELECT BDATE, ADDRESS
FROM EMPLOYEE
WHERE FNAME='John' and MINIT='B' and Lname='Smith';
```

```
SELECT FNAME, LNAME, ADDRESS
FROM EMPLOYEE
INNER JOIN DEPARTMENT
ON EMPLOYEE.DNO = DEPARTMENT.DNUMBER
WHERE DNAME = 'Finance';
```

```
SELECT PNUMBER, DNUM, LNAME, ADDRESS, BDATE
FROM PROJECT, DEPARTMENT, EMPLOYEE
WHERE DNUM = DNUMBER AND MGRSSN = SSN AND PLOCATION = 'Stafford';
```

```
SELECT FNAME, LNAME, PNAME
FROM DEPARTMENT, EMPLOYEE, WORKS_ON, PROJECT
WHERE DNUM=5 AND DNUMBER = DNO AND SSN = ESSN AND PNO = PNUMBER;
```

```
(SELECT DISTINCT PNUMBER
FROM PROJECT, DEPARTMENT, EMPLOYEE
WHERE DNUM = DNUMBER AND MGRSSN = SSN AND LNAME = 'Smith')
UNION
(SELECT DISTINCT PNUMBER
FROM PROJECT, WORKS_ON, EMPLOYEE
WHERE PNUMBER = PNO AND ESSN = SSN AND LNAME = 'Smith');
```

```
SELECT FNAME, MINIT, LNAME
FROM EMPLOYEE
WHERE (SELECT COUNT (*)
```

```
FROM DEPENDENT
WHERE EMPLOYEE.SSN = DEPENDENT.ESSN) >= 2;
```

```
SELECT FNAME, MINIT, LNAME
FROM EMPLOYEE
WHERE (SELECT COUNT (*)
FROM DEPENDENT
WHERE EMPLOYEE.SSN = DEPENDENT.ESSN) = 0;
```

```
SELECT FNAME, LNAME
FROM EMPLOYEE
WHERE EXISTS (SELECT *
FROM DEPENDENT
WHERE SSN = ESSN)
AND
EXISTS (SELECT *
FROM DEPARTMENT
WHERE SSN = MGRSSN);
```

```
SELECT EMPLOYEE.FNAME, EMPLOYEE.LNAME, SUPERVISOR.FNAME,
SUPERVISOR.LNAME
FROM EMPLOYEE, EMPLOYEE AS SUPERVISOR
WHERE EMPLOYEE.SUPERSSN = SUPERVISOR.SSN;
```

Result

CPU Time: 0.00 sec(s), Memory: 4540 kilobyte(s)

```
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|1968-07-19|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|F|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||1  
1|Houston  
4|Stafford  
5|Bellaire  
5|Sugarlane  
5|Houston  
Finance|5|333445555|1988-05-22  
Administration|4|987654321|1995-01-01  
Headquarters|1|888665555|1981-06-19  
123456789|1|32.5  
123456789|2|7.5  
666884444|3|40  
453453453|1|20  
453453453|2|20  
333445555|2|10  
333445555|3|10  
333445555|10|10  
333445555|20|10  
999887777|30|30
```

987987987|10|35
987987987|30|5
987654321|30|20
987654321|20|15
888665555|20|
ProductX|1|Bellaire|5
ProductY|2|Sugarland|5
ProductZ|3|Houston|5
Computerization|10|Stafford|4
Reorganization|20|Houston|1
Newbenefits|30|Stafford|4
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|Micheal|M|1988-01-04|Son
123456789|Alice|F|1988-12-30|Daughter
123456789|Elizabeth|F|1967-05-05|Spouse
1965-01-09|731 Fondren,
Houston, TX
Franklin|Wong|638 Voss,
Houston, TX
John|Smith|731 Fondren,
Houston, TX
Joyce|English|5631 Rice,
Houston, TX
Ramesh|Narayan|975 Fire
Oak, Humble, TX
10|4|Wallace|291
Berry, Bellaire, TX|1941-06-20
30|4|Wallace|291
Berry, Bellaire, TX|1941-06-20
John|Smith|ProductX
Joyce|English|ProductX
John|Smith|ProductY
Franklin|Wong|ProductY
Joyce|English|ProductY
Franklin|Wong|ProductZ

Berry, Bellaire, TX|1941-08-20

John|Smith|ProductX

Joyce|English|ProductX

John|Smith|ProductY

Franklin|Wong|ProductY

Joyce|English|ProductY

Franklin|Wong|ProductZ

Ramesh|Narayan|ProductZ

John|B|Smith

Franklin|T|Wong

Alicia|J|Zelaya

Ramesh|K|Narayan

Joyce|A|English

Ahmad|V|Jabbar

James|E|Borg

Franklin|Wong

Jennifer|Wallace

John|Smith|Franklin|Wong

Franklin|Wong|James|Borg

Alicia|Zelaya|Jennifer|Wallace

Jennifer|Wallace|James|Borg

Ramesh|Narayan|Franklin|Wong

Joyce|English|Franklin|Wong

Ahmad|Jabbar|Jennifer|Wallace