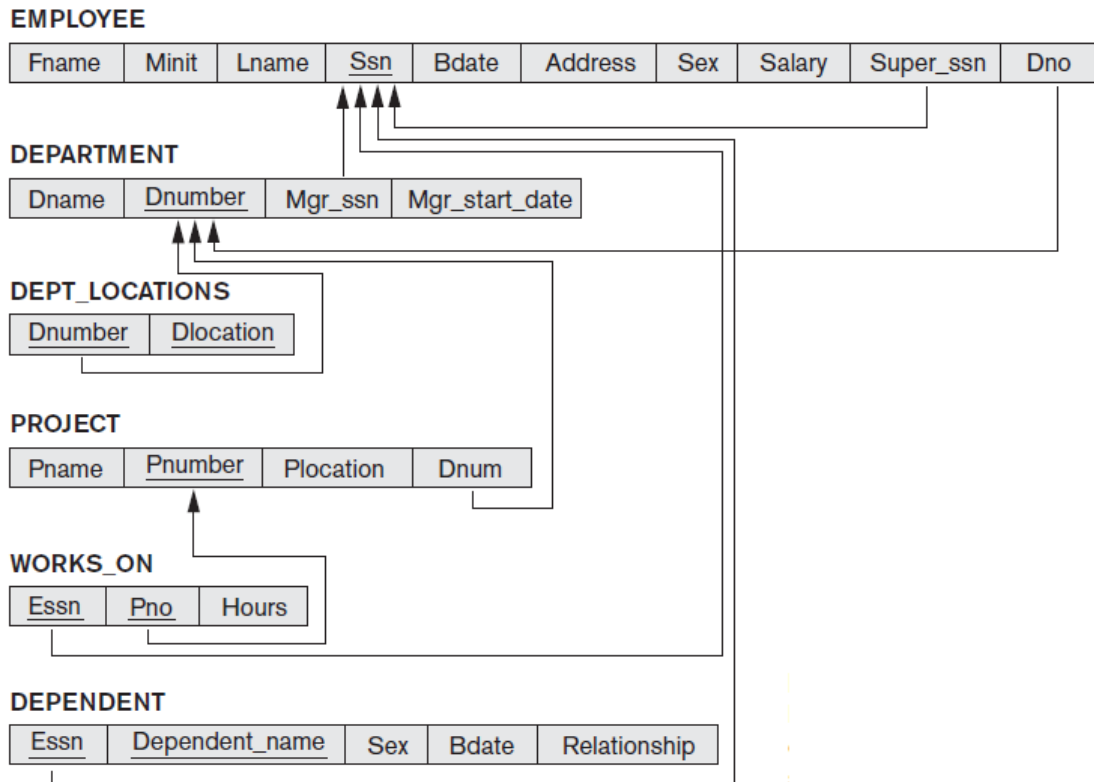


2018-2019 FALL SEMESTER

LABORATORY MANUAL

Experiment 6



1. Create the tables that given below and insert at least 3 records inside the tables.
2. Write SQL codes for following questions according to tables above.
 - a. Select the birthdate and address of the employee whose name is 'Zeynep H Sezgin'
 - b. Select the names of employees who have no dependents.(Hint: Exist)
 - c. Select the all employees whose address is in Erzurum, Turkey
 - d. Select for the each department that has more than 4 employees, retrieve the department number and the number of its employees who are making more than 5082 TL.

```

CREATE TABLE EMPLOYEE(
Fname   NVARCHAR(50),
Minit   NVARCHAR(50),
Lname   NVARCHAR(50),
Ssn     INTEGER NOT NULL PRIMARY KEY,
Bdate   DATE,
Address NVARCHAR(50),
Sex     NVARCHAR(50),
Salary  INTEGER,
Super_ssn  INTEGER,
Dno     INTEGER
);

CREATE TABLE DEPARTMENT(
Dname   NVARCHAR(50),
Dnumber INTEGER PRIMARY KEY,
Mgr_ssn INTEGER,
Mgr_start_date  DATE,
FOREIGN KEY (Mgr_ssn) REFERENCES EMPLOYEE(Ssn)
);

CREATE TABLE DEPT_LOCATIONS(
Dnumber INTEGER,
Dlocation  NVARCHAR(50),
FOREIGN KEY (Dnumber) REFERENCES DEPARTMENT(Dnumber)
);

CREATE TABLE PROJECT(
Pname   NVARCHAR(50),
Pnumber INTEGER PRIMARY KEY,
Plocation  NVARCHAR(50),
DnumINTEGER,
FOREIGN KEY (Dnum) REFERENCES DEPARTMENT(Dnumber)
);

CREATE TABLE WORKS_ON(
EssnINTEGER,
Pno     INTEGER,
Hours   INTEGER,
FOREIGN KEY (Essn) REFERENCES EMPLOYEE(Ssn),
FOREIGN KEY (Pno) REFERENCES PROJECT(Pnumber)
);

CREATE TABLE DEPENDENT(
EssnINTEGER,
Dependent_name  NVARCHAR(50),
Sex     NVARCHAR(50),
Bdate   DATE,
RelationshipNVARCHAR(50)
FOREIGN KEY (Essn) REFERENCES EMPLOYEE(Ssn)
);
,
FOREIGN KEY (Dnum) REFERENCES DEPARTMENT(Dnumber)
);

CREATE TABLE WORKS_ON(
EssnINTEGER,
Pno     INTEGER,
Hours   INTEGER,
FOREIGN KEY (Essn) REFERENCES EMPLOYEE(Ssn),
FOREIGN KEY (Pno) REFERENCES PROJECT(Pnumber)
);

```

```
CREATE TABLE DEPENDENT(
EssnINTEGER,
Dependent_name NVARCHAR(50),
Sex NVARCHAR(50),
Bdate DATE,
RelationshipNVARCHAR(50)
FOREIGN KEY (Essn) REFERENCES EMPLOYEE(Ssn)
);
```

```
INSERT INTO EMPLOYEE VALUES
('Zeynep', 'H', 'Sezgin', 1, '1999-02-10', 'Eskişehir', 'M', 1000, 123, 1),
('Ahmet', 'H', 'Sezgin', 2, '2000-02-10', 'Ankara', 'F', 1000, 123, 1),
('Mehmet', 'H', 'Sezgin', 3, '2001-02-10', 'Canakkale', 'F', 1000, 123, 1),
('Gül', 'H', 'Sezer', 5, '1999-02-10', 'Erzurum', 'M', 6000, 123, 1);
```

```
INSERT INTO DEPARTMENT VALUES
('Computer', 3, 1, '2000-02-10'),
('Computer', 4, 3, '2000-02-10'),
('Computer', 5, 4, '2000-02-10'),
('Computer', 6, 5, '2000-02-10');
```

- a. Select the birthdate and address of the employee whose name is 'Zeynep H Sezgin'

```
SELECT Bdate, Address
FROM EMPLOYEE
WHERE Fname = 'Zeynep' and Minit = 'H' and Lname = 'Sezgin'
```

- b. Select the names of employees who have no dependents.(Hint: Exist)

```
SELECT Fname
FROM EMPLOYEE e, DEPENDENT d
WHERE NOT EXISTS(SELECT Essn FROM DEPENDENT)
```

- c. Select the all employees whose address is in Erzurum, Turkey

```
SELECT *
FROM EMPLOYEE
WHERE Address = 'Erzurum'
```

- d. Select for the each department that has more than 4 employees, retrieve the department number and the number of its employees who are making more than 5082 TL.

```
SELECT Dnumber, COUNT(*) NumberOfEmployee
FROM DEPARTMENT d, EMPLOYEE e
WHERE d.Dnumber = e.Dno AND
e.Salary > 5082
GROUP BY Dnumber
HAVING COUNT(e.Ssn) > 4;
```