Company Database Schema

Here is the schema of a company database, please implement it on any RDBMS you like and then try to create the following requests (queries): "create only the dependent table with all data and relations"

Employee:

Fname	Lname	SSN	BDATE	Addresss	Sex	Salary	Superssn	Dno
Ahmed	Ali	112233	1/1/1965	15 Ali fahmy St.Giza	M	1300	223344	10
Kamel	Mohamed	223344	15/10/1970	38 Mohy el dien abo el Ezz St.Cairo	M	1800	321654	10
Hanaa	Sobhy	123456	18/3/1973	38 Abdel Khalik Tharwat St. Downtown.Cairo	F	800	223344	10
Amr	Omran	321654	14/9/1963	44 Hilopolis.Cairo	M	2500	null	null
Noha	Mohamed	968574	1/2/1975	55 Orabi St. El Mohandiseen .Cairo	F	1600	321654	20
Edward	Hanna	512463	19/8/1972	18 Abaas El 3akaad St. Nasr City.Cairo	M	1500	321654	30
Mariam	Adel	669955	12/6/1982	269 El-Haram st. Giza	F	750	512463	20
Maged	Raoof	521634	6/4/1980	18 Kholosi st.Shobra.Cairo	M	1000	968574	30

Department

Dname	DNum	MGRSSN	MGRStart Date
DP1	10	223344	1/1/2005
DP2	20	968574	1/3/2006
DP3	30	512463	1/6/2006

Works_for

ESSN	Pno	Hours
223344	100	10
223344	200	10
223344	300	10
112233	100	40
968574	400	15
968574	700	15
968574	300	10
669955	400	20
223344	500	10
669955	700	7
669955	300	10
512463	500	10
512463	600	25
521634	500	10
521634	600	20
521634	300	6
521634	400	4

Project

Pname	Pnumber	Plocation	City	Dnum
AL Solimaniah	100	Cairo_Alex Road	Alex	10
Al Rabwah	200	6th of October City	Giza	10
Al Rawdah	300	Zaied City	Giza	10
Al Rowad	400	Cairo_Faiyom Road	Giza	20
Al Rehab	500	Nasr City	Cairo	30
Pitcho american	600	Maady	Cairo	30
Ebad El Rahman	700	Ring Road	Cairo	20

Dependent

ESSN	Dependent_name	Sex	Bdate
112233	Hala Saied Ali	F	18/10/1970
223344	Ahmed Kamel Shawki	M	27/3/1998
223344	Mona Adel Mohamed	F	25/4/1975
321654	Ramy Amr Omran	M	26/1/1990
321654	Omar Amr Omran	M	30/3/1993
321654	Sanaa Gawish	F	16/5/1973
512463	Sara Edward	F	15/9/2001
512463	Nora Ghaly	F	22/6/1976

Data Manipulating Language:

1. Insert your personal data to the employee table as a new employee in department number 30, SSN = 102672, Superssn = 112233.

    insert into employee
    values ('Marwan' , 'Mokhtar' ,'102672' , '1999-9-15' , '15 Mansourya
    , Haram ' , 'M' , '2000' , '112233' , '30');

2. Insert another employee with, personal data your friend as new employee in department number 30, SSN = 102660, but don't enter any value for salary or supervisor number to him.

    insert into employee
    values ('Hussien' , 'Nabil' ,'102660' , '1999-1-7' , 'Cairo, NasrCity, 15
    st' , 'M' , null , null , '30');
    -- or
    insert into employee (fname , lname , ssn , bdate , address , sex , dno)
    values ('Hussien' , 'Nabil' ,'102660' , '1999-1-7' , 'Cairo, NasrCity, 15
    st' , 'M' , '30');

3. In the department table insert new department called "DEPT IT", with id 100, employee with SSN = 112233 as a manager for this department. The start date for this manager is '1-11-2006'

    insert into departments
    values ('DEPT IT' , '100' , '112233' , '1-11-2006')

4. Do what is required if you know that: Mrs.Noha Mohamed(SSN=968574) moved to be the manager of the new department (id = 100), and they give you (use your SSN from question1) her position (Dept. 20 manager)

    a. First try to update her record in the department table
    b. Update your record to be department 20 manager.
    c. Update your friend data (entered in question2) to be in your teamwork (supervised by you)

    update departments
    set mgrssn = '968574'
    where dnum = '100';

```
update departments
set mgrssn = '102672'
where dnum = '20';

update employee
set dno='100'
where ssn= '968574';

update employee
set dno='20'
where ssn= '102672';

update employee
set dno='20'
where ssn= '102660';
```

5. Unfortunately, the company ended the contract with Mr. Kamel Mohamed (SSN=223344) so try to delete his data from your database in case you know that your friend will be temporarily in his position.
Hint: (Check if Mr. Kamel has dependents, works as a department manager, supervises any employees or works in any projects and handle these cases).

```
update departments
set mgrssn = '102660'
where dnum = '10';
update works_for
set essn = '102660'
where essn = '223344';
update employee
set superssn = '102660'
where superssn = '223344'
delete from dependent
where essn= '223344';
delete from employee
where ssn= '223344';
```

6. And your salary has been upgraded by 20 percent of its last value.

```
update employee
set salary = salary + salary * 0.2
where ssn= '102672'
```

Try to create the following Queries:

1. Display all the employees Data.
   Select *
   from employee;

2. Display the employee First name, last name, Salary and Department number.
3. Display all the projects names, locations and the department which is responsible about it.
4. If you know that the company policy is to pay an annual commission for each employee with specific percent equals 10% of his/her annual salary. Display each employee full name and his annual commission in an ANNUAL COMM column (alias).
5. Display the employees Id, name who earns more than 1000 LE monthly.
6. Display the employees Id, name who earns more than 10000 LE annually.
7. Display the names and salaries of the female employees
8. Display each department id, name which managed by a manager with id equals 968574.
9. Display the IDs, names and locations of the pojects which controlled with department 10.

```
-- Queries
-- 1.
Select * from employee
-- 2.
select fname , lname , salary , dno
from employee
-- 3.
select pname , plocation , dnum
from project
select * from project
-- 4.
select fname || ' ' || lname as "Full Name" , salary*12*0.1 as
"ANNUAL COMM"
from employee
-- 5.
select ssn , fname || ' ' || lname as "Full Name"
from employee
where salary > '1000'
-- 6.
select ssn , fname || ' ' || lname as "Full Name"
from employee
where salary*12 > '10000'
-- 7.
```

```sql
select fname || ' ' || lname as "Full Name" , salary
from employee
where sex = 'F'
-- 8.
select dnum , dname
from departments
where mgrssn = '968574'
-- 9.
select pnumber , pname , plocation
from project
where dnum = '10'
```