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):

Employee:

Fname	Lname	SSN	BDATE	Addresss	Gender	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	DNumber	MGRSSN	MGRStartdate
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	Gender	Bdate
123456	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

Queries:

1. Display the employee First name, last name, Salary and Department number in department 30 whose salary from 1000 to 2000 LE monthly

   select Fname ,Lname ,Dno from Employee where Salary between 1000 and 2000 and dno=30;

2. Display all the projects names, locations and the department number which is managed by it.

   select Pname,Plocation,Dnum from Project;

3. If you know that the company policy is to pay an annual commission for each employee which specific percent equals 10% of his/her annual salary .

4. Display each employee full name and his annual commission in an ANNUAL COMM column (alias).

   select Fname+" "+ Lname as full_name ,Salary12∗*0.1 as annual_commision from Employee

5. Display the employees Id, fname who earns more than 1000 LE.

select SSN ,Fname from Employee where Salary >1000

6. Display the names and salaries of the female employees

   select Fname+' '+Lname as name , Salary from Employee where gender ="F";

7. Display each department id, name which managed by a manager with id equals 968574.

select Dnum , Dname from Departments where MGRSSN = 968574;

8. Display the project id, name and location of the projects which
   controlled with department 10 or 20,
   and location of the projects in Cairo or Alex city

select Pnumber,Pname,Plocation from Project where Dnum =10 or 20 and Plocation = "Cairo" or "Alex";

9. Display the Projects name, locations of the projects with a project name starts with "p" letter.

select Pname,Plocation from Project where Pname like "P*";

Data Definition Language:
Create the dependent table and create the relationship with employee table Then Insert 3 rows only
• **create table Dependent(emp_id int , Dependent_name varchar(255) , Gender varchar(1),Bdate varchar(255) ,PRIMARY KEY (emp_id,Dependent_name), FOREIGN KEY (emp_id) references Employee(SSN)** • **insert into Dependent (emp_id,Dependent_name,Gender,Bdate) values (112233,"dep1","M","9/9/1666");** • **insert into Dependent (emp_id,Dependent_name,Gender,Bdate) values (112233,"dep2","M","9/9/1656");** • **insert into Dependent (emp_id,Dependent_name,Gender,Bdate) values (112233,"dep2","M","9/9/1656");** • **failed in deletion**

Data Manipulating Language:

1. Insert new employee with your personal data, you will be in department number 30, your SSN = 666666 & Superssn = 112233.
After remove Doaa recored **insert into Employee** **(Fname,Lname,SSN,Bdate,Address,gender,Salary,Superssn,Dno) values** **("Hassan","Mahmoud",666666,"6/9/1999","138 str bakous** **alex","M",6000,112233,30);**
2. Insert another employee with personal data your friend as new employee in department number 30 , SSN = 555555, but don't enter any value for salary or manager number to him.
insert into Employee (Fname,Lname,SSN,Bdate,Address,gender,Superssn) **values ("Ehab","Abdo",555555,"1/3/1999","130 str kadora alex","M",112233);**
3. In the department table insert new department called "DEPT IT" , with id 100, MgrSSN = 112233 as a manager for this department. The start date for this manager is '08/12/2006'
insert into Departments (Dname,Dnum,MGRSSN,[MGRStart Date]) values **("DEPT IT",100,112233,"08/12/2006")**

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

   Steps:

   a. Your friend will be the manager of Dept 20 (her previous department)

   b. Update her record in your database to be a manager of department 100

   c. Update your friend data, add yourself as a supervisor for him (supervised by you)

- **update Departments set MGRSSN=555555 where Dnum=20**

- **update Departments set MGRSSN=968574 where Dnum=100**

- **update Employee set Superssn=666666 where Fname="Ehab" and
  Lname="Abdo";**

5. Unfortunately the company ended the contract with **Mr.Kamel Mohamed** so **try to delete his data from your database**, in case you need, you can be temporary in his position.

Upgrade your salary by **20 present** of its last value.

- **delete from Works_for where ESSn =223344;**
- **update Departments set MGRSSN = 666666 where Dname="DP1";**
- **update Employee set Superssn =666666 where SSN = 112233 or 123456;**
- **delete from Employee where SSN=223344;**
- **update Employee set Salary= (Salary*0.2+Salary) where Fname="Hassan" and Lname="Mahmoud" ;**