**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 ('Radya','Al-basha',102672,'15/1/1997','16 Tiaran St.Cairo','F',1300, 112233,30);

1. 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 manager number to him.

INSERT INTO Employee (Fname, Lname, SSN , Bdate, Address, Sex, Dno )

VALUES ('Sara','Mohammed', 102660,'1/10/1996' ,'15 Helmy Hassan St.Cairo','F' ,30);

1. 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);

1. 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)
   1. First try to update her record in the department table

UPDATE Departments

SET MGRSSN = 968574

WHERE Dnum=100;

* 1. Update your record to be department 20 manager.

UPDATE Departments

SET MGRSSN = 102672

WHERE Dnum=20;

* 1. Update your friend data(entered in question2) to be in your teamwork (supervised by you)

UPDATE Employee

SET Superssn = 102672

WHERE SSN=102660;

1. 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 you 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).

DELETE \*

FROM Dependent

WHERE ESSN=223344;

UPDATE Departments

SET MGRSSN = 102660

WHERE MGRSSN = 223344;

UPDATE Employee

SET Superssn = 102672

WHERE Superssn=223344;

DELETE

FROM Works\_for

WHERE ESSN=223344;

DELETE \*

FROM employee

WHERE SSN=223344;

1. And your salary has been upgraded by 20 present of its last value.

update Employee

set Salary = Salary+(Salary\*2/100)

WHERE SSN=102672;

**Try to create the following Queries:**

1. Display all the employees Data.

SELECT \*

FROM Employee;

1. Display the employee First name, last name, Salary and Department number.

SELECT Fname, Lname, Salary, Dno

FROM employee;

1. Display all the projects names, locations and the department which is responsible about it.

SELECT Pname, Plocation, Dnum

FROM Project;

1. 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).

SELECT Fname, Lname, Salary \* 10 /100 \*12 AS ["ANNUAL COMM"]

FROM Employee;

1. Display the employees Id, name who earns more than 1000 LE monthly.

SELECT SSN, Fname, Lname

FROM Employee

WHERE Salary > 1000;

1. Display the employees Id, name who earns more than 10000 LE annually.

SELECT SSN, Fname,Lname

FROM Employee

WHERE ((([Salary]\*12)>10000));

1. Display the names and salaries of the female employees

SELECT Fname, Lname, Salary

FROM Employee

WHERE Sex = 'F';

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

SELECT Dnum, Dname

FROM Departments

WHERE MGRSSN = 968574;

1. Dispaly the ids, names and locations of the pojects which controled with department 10.

SELECT Pnumber, Pname, Plocation

FROM Project

WHERE Dnum = 10;