**Company Database Schema**

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| 1. Display the **Department id**, **Department Name** and its **manager id** and the **Manager name.** |
| SELECT Dnum,Dname,SSN,(Fname &" "& Lname) as Manager  FROM Departments d,Employee e  WHERE d.MGRSSN = e.SSN;   | **Query1** | | | | | --- | --- | --- | --- | | **Dnum** | **Dname** | **SSN** | **Manager** | | 10 | DP1 | 223344 | Kamel Mohamed | | 20 | DP2 | 968574 | Noha Mohamed | | 30 | DP3 | 512463 | Edward Hanna | |
| 1. Display the **project name** and **departments’ name** that **control them** |
| SELECT Pname,Dname  FROM Project p,Departments d  WHERE p.Dnum = d.Dnum;   | **Query2** | | | --- | --- | | **Pname** | **Dname** | | AL Solimaniah | DP1 | | Al Rabwah | DP1 | | Al Rawdah | DP1 | | Al Rowad | DP2 | | Ebad El Rahman | DP2 | | Al Rehab | DP3 | | Pitcho american | DP3 | |
| 1. Display the **dependent name** for all the dependence and the **name of the employee** they depend on him/her. |
| SELECT Dependent\_name,(Fname&" "&Lname) as emp\_name FROM Dependent d,Employee e WHERE d.ESSN=e.SSN;   | **Query7** | | | --- | --- | | **Dependent\_name** | **emp\_name** | | Hala Saied Ali | Hanaa Sobhy | | Ahmed Kamel | Kamel Mohamed | | Mona Adel Mohamed | Kamel Mohamed | | Omar Amr Omran | Amr Omran | | Ramy Amr Omran | Amr Omran | | Sanaa Gawish | Amr Omran | | Nora Ghaly | Edward Hanna | | Sara Edward | Edward Hanna | |
| 1. Retrieve the employee **first name, project name** of all employees work in **department 10** who **works more than or equal 10 hours**   ordered by **first name**. |
| SELECT DISTINCT Fname,Pname,p.Dnum,Hours  FROM Project p,Employee e,Works\_for w  WHERE p.Pnumber = w.Pno and w.ESSN = e.SSN and Dnum = 10 and Hours >=10;   | **Query3** | | | | | --- | --- | --- | --- | | **Fname** | **Pname** | **Dnum** | **Hours** | | Ahmed | AL Solimaniah | 10 | 40 | | Kamel | Al Rabwah | 10 | 10 | | Kamel | Al Rawdah | 10 | 10 | | Kamel | AL Solimaniah | 10 | 10 | | Mariam | Al Rawdah | 10 | 10 | | Noha | Al Rawdah | 10 | 10 | |
| 1. List the **last name** of all **managers** who have **no dependents.** |
| SELECT DISTINCT e2.Fname,e2.Lname , e2.SSN,Dependent\_name  FROM ((Employee e1  INNER JOIN Employee e2 ON e1.Superssn = e2.SSN)  LEFT JOIN Dependent d ON e2.SSN = d.ESSN)  WHERE Dependent\_name IS NULL;   | **Query5** | | | | | --- | --- | --- | --- | | **Fname** | **Lname** | **SSN** | **Dependent\_name** | | Noha | Mohamed | 968574 |  | |
| 1. Display the **department name** which has the **smallest employee ID over all employees' ID.** |
| SELECT TOP 1 Dname,MIN(SSN) as min\_ssn  FROM(SELECT Dname,Dno,SSN  FROM Departments d, Employee e  WHERE d.Dnum = e.Dno)  GROUP BY Dname   | **Query4** | | | --- | --- | | **Dname** | **min\_ssn** | | DP1 | 112233 | |
| 1. For each department >>> display **department name and number of its employees**   -- if its **average salary is less than 1200** |
| SELECT \*  FROM(SELECT Dname,Dnum,AVG(Salary) as avg\_salary,COUNT(\*) as num\_emp  FROM Departments d , Employee e  WHERE d.Dnum = e.Dno  GROUP BY Dname,Dnum)  WHERE avg\_salary < 1200;   | **Query6** | | | | | --- | --- | --- | --- | | **Dname** | **Dnum** | **avg\_salary** | **num\_emp** | | DP2 | 20 | 1175 | 2 | |