**Company Database Schema**

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| 1. Display the **Department id**, **name** and its **manager id** and the **name of its manager.** |
| Select Dnum , Dname , MGRSSN , Fname , Lname from departments d , employee e where d.MGRSSN = e.SSN ; |
| 1. Display the **departments’ name** and the **project name** of the **under their control.** |
| Select Dname , Pname from departments d inner join project p  on ( d.Dnum = p.Dnum ) ; |
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| 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 from dependent d inner join employee e  on( d.ESSN = e.SSN ) ; |
| 1. Retrieve the **fname, pname** of all employees work in **department 10** who **works more than or equal 10 hours** per week on **‘AL Rabwah’** project. |
| select Fname,Pname from employee e,project p, works\_for w where ESSn = SSN and Pno = pnumber and Dno=10 and Hours>=10 and Pname ="AL Rabwah"; |
| 1. Find the **fname** of the employees who **directly supervised** with ‘**Kamel Mohamed’**. |
| Select Fname from employee where superssn =  ( select SSN from employee  where Fname=”Kamel” and Lname=”Mohamed” ); |
| 1. List the **last name** of all managers who have **no dependents.** |
| Select Lname from employee e , departments d  Where e.SSN = d.MGRSSN  And e.SSN not in ( select ESSN from dependent ); |
| 1. Display the **department name** which has the **smallest employee ID over all employees' ID.** |
| select Dname from departments d, employee e  where d.Dnum=e.Dno and  e.SSN=( select Min(SSN) from employee ); |
| 1. For each department, retrieve the **department name** and the **maximum**, **minimum** and **average** **salary** of its employees. |
| Select Dname , MAX(Salary) as max , MIN(Salary) as min , AVG(Salary) as average  -> from departments d , employee e  -> where d.Dnum = e.Dno  -> group by Dname ; |
| 1. For each department >>> display **department number**, **department name and number of its employees**   -- if its **average salary is less than 1200** |
| select Dnum , Dname , count(SSN)  from departments d , employee e  where d.Dnum = e.Dno  group by Dnum , Dname  having AVG(Salary) < 1200 ; |
| 1. Retrieve a list of employees (**fname**) and the projects (**project name**) they are working on ordered by **department no, last name, first name**. |
| Select Fname , Pname  -> From employee e , project p , works\_for w  -> Where e.SSN = w.ESSN and w.Pno = p.Pnumber  -> Order by Dno, Lname , Fname ; |
| 1. Find the **project number**, the **controlling department name**, the **department manager last name**, address and **birthdate**. For each project located in ‘**Cairo’** City |
| Select Pnumber , Dname , Lname , Address , Bdate  -> From project p , employee e , departments d  -> where p.Dnum = d.Dnum and e.SSN = d.MGRSSN  -> and p.city = "Cairo"; |