**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,CONCAT(Fname, ' ', Lname) AS'Full Name' from departments d left join employee e on d.Dnum =e.Dno; |
| 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; |
| 1. Display the **dependent name** for all the dependence and the **name of the employee** they depend on him/her.   select dependent\_name,Fname from employee e right join dependent d on e.SSN =d.ESSN; |
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| 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 inner join works\_for w on e.SSN=w.ESSN inner join project p on w.Pno=p.Pnumber where e.Dno=10 and w.Hours>=10 and p.Pname='Al Rabwah'; |
| 1. Find the **fname** of the employees who **directly supervised** with ‘**Kamel Mohamed’**. |
| select Fname from employee e join employee m on e.SSN=m.Superssn where e.Fname='Kamel' and m.Lname='Mohamed'; |
| 1. List the **last name** of all managers who have **no dependents.** |
| select e.lname from employee e join departments d on e.ssn = d.MGRSSN left join dependent de on e.SSN=de.ESSN where de.ESSN IS NULL; |
| 1. Display the **department name** which has the **smallest employee ID over all employees' ID.** |
| **select Dname from departments d inner join employee e on d.Dnum=e.Dno where e.SSN =(select min(e.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),min(Salary),AVG(Salary) from employee e right join departments d on e.Dno=d.Dnum group by d.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 left join employee e on d.Dnum=e.Dno group by d.Dnum, d.Dname having AVG(e.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 inner join project p on e.Dno=p.Dnum order by e.Dno ,e.Lname,e.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 Pname,Dname,Lname from Project p left join departments d on p.Dnum =d.Dnum left join employee e on e.Dno =d.Dnum; |