**Company Database Schema**

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| 1. Display the **Department id**, **name** and its **manager id** and the **name of its manager.** |
| SELECT Dname,Dnum,MGRSSN,Fname,Lname  FROM EMPLOYEE , DEPARTMENTS  WHERE Dnum=Dno and MGRSSN = ssn |
| 1. Display the **departments’ name** and the **project name** of the **under their control.** |
| SELECT distinct Dname,Pname  from departments,project  where departments.Dnum=project.Dnum  ; |
| 1. Display the **dependent name** for all the dependence and the **name of the employee** they depend on him/her. |
| SELECT Fname+Lname AS [name of the employee] , Dependent\_name  FROM EMPLOYEE , DEPENDENT  WHERE ESSN=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,hours  from project,works\_for,employee  where ssn = essn and pno = pnumber and hours >=10 and pname= 'AL Rabwah' |

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| 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'); |
| 1. List the **last name** of all managers who have **no dependents.** |
| SELECT DISTINCT e.lname  FROM employee AS e, dependent, employee AS s  WHERE e.ssn=s.Superssn and  not e.ssn = essn |
| 1. Display the **department name** which has the **smallest employee ID over all employees' ID.** |
| select Dname  from departments,employee  where dno = dnum and 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, AVG(Salary) as ['average salary'], MIN(salary) as ['minimum salary'],max(salary) as ['maximum salary']  from departments,employee  where dno = dnum  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,avg(salary)  from employee,departments  where dno = dnum  group by dnum  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 ,project,works\_for  where ssn = essn and pno = pnumber  ORDER BY Dnum , Lname , fname |

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| 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,e.lname,e.Address,e.Bdate  from project p , departments d,employee e,employee s  where p.dnum = d.dnum and e.ssn= s.superssn and mgrssn = e.ssn  and City = 'Cairo'; |