# SOL Queries And Answeres

**Create the following Tables:**

|  |  |
| --- | --- |
| **LOCATION** | |
| Location TO | Regional Grouo |
| 122 | NEW YORK |
| 123 | DALLAS |
| 124 | CHICAGO |
| 167 | BOSTON |

|  |  |  |
| --- | --- | --- |
| **OEPARTMENT** | | |
| Oenartment **ID** | Name | Location **ID** |
| 10 | ACCOUNTING | 122 |
| 20 | RESEARCH | 124 |
| 30 | SALES | 123 |
| 40 | OPERATIONS | 167 |

|  |  |
| --- | --- |
| **JOB** | |
| **Job ID** | Function |
| 667 | CLERK |
| 668 | STAFF |
| 669 | ANALYST |
| 670 | SALESPERSON |
| 671 | MANAGER |
| 672 | PRESIDENT |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **EMPLOYEE** | | | | | | | | | |
| EMPL OYEE  -ID | LAST\_N AME | FIRST  \_NAM E | MID OLE  \_NA ME | JOB\_I D | MANA GER.\_I D | HIREDATE | SALAR  y | COMM | DEPA RTME NT\_ID |
| 7369 | SMITH | JOHN | 0 | 667 | 7902 | 17-DEC-84 | 800 | NULL | 20 |
| 7499 | ALLEN | KEVIN | J | 670 | 7698 | 20-FEB-85 | 1600 | 300 | 30 |
| 7505 | DOYLE | JEAN | K | 671 | 7839 | 04-APR-85 | 2850 | NULL | 30 |
| 7506 | DENNIS | LYNN | s | 671 | 7839 | 15•MAY•85 | 2750 | NULL | 30 |
| 7507 | BAKER | LESLI E | D | 671 | 7839 | 10-JUN-85 | 2200 | NULL | 40 |
| 7521 | WARK | CYNT  HIA | D | 670 | 7698 | 22-FEB-85 | 1250 | 500 | 30 |

**Queries based on the above tables:**

Simple Queries:

1. List all the employee details
2. List all the department details
3. List all job details
4. List all the locations

s. List out first name,last name,salary, commission for all employees

1. List out employee\_ld,last name,department Id for all employees and rename employee Id as "IO of the employee", last name as "Name of the employee", department id as **"department** 1D·
2. List out the employees anuual salary with their names only. Where Conditions:
3. List the details about "SMITH"
4. List out the employees who are working in department 20
5. List out the employees who are earning salary between 3000 and 4500 l 1. List out the employees who are working in department 10 or 20
6. Find out the employees who are not working in department 10 or 30
7. List out the employees whose name starts with "S"
8. List out the employees whose name start with "S,.and end with "H"
9. List out the employees whose name length is 4 and start with "S"
10. List out the employees who are working In department 10 and draw the salaries more than

3500

1. list out the employees who are not receiving commission. Order By Clause:
2. List out the employee Id, last nameIn ascending order based on the employee Id.
3. List out the employee id, name In descending order based on salary column
4. 11st out the employee details according to their last\_name in ascending order and salaries In descending order
5. llst out the employee details according to their last\_name In asc-endfng order and then on

departmenLid in descending order.

Group By & Having Clause:

1. How many employees who are working In different departments wise In the organization
2. List out the department wise maximum salary, minimum salary, average salary of the employees
3. List out the job wise maximum salary, minimum salary, average salar'les of the employees.
4. List out the no.of employees joined in every month Jn ascending order.
5. List out the no.of employees for each month and year, in the ascending order based on the year, month.
6. List out the department id having atleast four employees.
7. How many employees in January month.
8. How many employees who are joined In January or September month.
9. How many employees who are joined In 198S.
10. How many employees joined each month in 1985.
11. How many employees who are joined In March 1985.
12. Which Is the department id, having greater than or equal to 3 employees joined in April 1985.

Sub-Queries

1. Olsplay the employee who got the maximum salary.
2. Display the employees who are working in Sales department
3. Display the employees who are working as "Clerk".
4. Dlsplav the employees who are working in "New YOl'k"'
5. Findout no.of employees working in "Sales" department.
6. Update the employees salaries, who are working as Clerk on the basis of 10%.
7. Delete the employees who are working In accounting department.
8. Display the second highest salary drawing employee details.
9. Display the Nth highest salary drawing employee details

Sub-Query operators: **(ALL,ANY,SOME,EXISTS)**

1. List out the employees who earn more than every employee In department 30.
2. List out the employees who earn more than the lowest salary in department 30.
3. Find out whose department has not employees.
4. Find out which department does not have any employees.

*Co-Related Sub Queries:*

1. Find out the employees who earn gl'eater than the average salary for their department.

# Joins

Simple join

1. List our employees with their department names 49.0isplay employees with their designations (Jobs)

SO.Display the employees with their department name and rnglonal groups.

51.How many employees who are working in different departments and display with department name.

S2.How many employees who are wol'klng In sales department.

53.Which Is the department having greater thanor equal to 5 employees and display the department names in ascending order.

S4.How many Jobs In the organization withdesignations.

55.How many employees working in "New York".

Non - Equl loin:

56.Display employee details with salary grades. S7.Llst out the no. *of* employees on grade wise.

SB.Display the employ salary grades and no. of employees between 2000 to 5000 range or salary.

**Self Join:**

S9.Display the employee details with their manager names.

60.Dlsplay the employee details who earn more than their managers salaries.

61.Show the no. of employees working under every manager.

Outer Join:

61.0isplay employee details with all departments. 62.0isplay all employees In sales or operation departments.

set Operators:

1. Ust out the distinct jobsIn Sales and Accounting Departments.
2. Ust out the AU jobs in Sales and Accounting Departments.
3. Ust out the common jobs in Research and Accounting Departments In ascending order.

**Answers**

**l. SQL > Select \* from employee;**

1. **SQL > Select • from department;**
2. SQL > Select • from job;
3. SQL > Select • from loc;

**S. SQL > Select firsLname, last\_name, salary, commission from employee;**

1. **SQL > Select employee\_ld** "id **of the employee", last\_name "name", department id as**

"department id" from employee;

1. **SQL > Select lasLname, salary\*l2 "annual sala.-y" from employee**
2. **SQL > Select \* From employee where last\_name='SMITH';**
3. **SQL > Select--' From employee where department\_ld=20**
4. SQL > Select • from employee where salary between 3000 and 4500 1L SQL > Select• from employee where departmenLld In (20,30)
5. **SQL > Select last\_name, salary, commlsslon, department\_ld From employee where**

departmenLld notin (10,30)

1. SQL > Select• from employee where last\_name like'S%'
2. **SQL > Select .. from employee where last\_name like 'So/oH'**
3. **SQL > Select .. from employee where last\_name like •s\_•**
4. SQL >Select• from employee where department\_ld=lO and salary>3500
5. **SQL > Select .., from employee where commission is Null**
6. **SQL > Select employee\_id, last\_name from employee order by employee\_ld**
7. **SQL > Select employee\_ld, last\_name, salary from employee order by salary desc**
8. **SQL > Select employee\_id, lasLname, salary from employee order by tast\_name, salary desc**
9. **SQL > Select employee\_id, last\_name, salary from employee order by last\_name,**

departmenLld desc

1. **SQL > Select depart.ment\_fd, count(•), from employee group by department\_id**
2. **SQL > Select department,\_id, count(\*), max(salary), min(salary), avg(salary) from**

employee group by departmenLid

1. SQL > Select Job\_ld, count(\*), max(salary), mln(salary), avg(salary) rrom employee group by job\_id
2. SQL > Select to\_char(hire\_date,'month')month,count(\*) from employee group by

**to\_char(hfre\_date,'month') order by month**

1. **SQL > Select to\_char(hire\_date,'yyyy') Year, to\_char(hlre\_date,'mon') Month, count(\*) "No. of employees" from employee group by to\_c:har(hire\_date,'yyyy'), to\_char(hlre\_date,'mon')**
2. **SQL > Select department\_ld, count("') From employee group by department,\_id having count(\*)>=4**
3. SQL > Select to\_char(hlre\_date,'mon') month, count(•) from employee group by

**to\_char(hlre\_date,'man') having to\_char(hlre\_date,'mon')='jan'**

1. SQL > Select to\_char(hlre\_date,'mon') month, count(•) from employee group by to\_char(hire\_date,'mon') having to\_char(hlre\_date,'mon') in ('jan','sep')

JO.SQL > Select to\_char(hire\_date,'yyyy'J Year, count(\*) from employee group by to\_char(hlre\_date,'yyyy') having to\_char(hlre\_date,'yyyy'J=1985

1. SQL > Select to\_char(hire\_date,'yyyy')Year, to\_char(hire\_date,'mon1 Month, count(...) "No, of employees· from employee where to\_char(hlre\_date,'yyyy')•l985 group by to\_char(hire\_date,'yyyy'),to\_char(hire\_date,'mon')
2. SQL > Select to\_char(hlre\_date,'yyyy')Year, to\_char(hlre\_date,"mon') Month, count( ) "No. of employees" from employee where to\_char(h1re\_date,'yyyy')=1985 and to\_char(hlre\_date,'mon')='mar· group by to\_char(hlre\_date,'yyyy1,to\_char(hlre\_date,'mon')

33,SQL > Select department\_id, count(\*)"No. of employees" from employee where to\_char(hlre\_date,'yyyy')• 1985 and to\_char(hire\_date,'mon')•'apr' group by to\_char(hlre\_date,•yyyy'), to\_char(hlre\_date,'mon'), department\_id having count("')>=3

34, SQL > Select • from employee where salary=(select max(salary) from employee)

JS. SQL > Select • from employee where departmenLld IN (select department\_ld from department where name='SALES')

1. SQL > Select ·-. from employee where job\_id in (select job\_id from job where functlon='CLERK'
2. SQL >Select\* from employee where department\_id=(select department\_id from department where locatfon\_ld=(select location\_ld from location where regionat\_group='New York'))
3. SQL *>* Select ...: from employee where department\_id=(select department\_id from department where name 'SALES' group by departmenLld)
4. SQL > Update employee set salary=salary\*l0/100 wehre Job\_ld=(select Job\_ld from Job where runction='CLERK')
5. SQL > delete from employee where department\_/d;;r(select department\_ld from department where name='ACCOUNTING')
6. SQL > Select ,i,; from employee where salary=(select max(salary) from employee where salary <(select max(salary) from employee))
7. SQL > Select distinct e.salary from employee where & no-l=(select count(distlnct salary) from employee where sal>e.s.alary)
8. SQL > Select \* from employee whe.re salary > all (Select salary from employee where department.\_ld=JO)
9. SQL > Select• from employee where salary > any (5elect salary from employee where department\_ld=JO)
10. SQL > Select employee\_id, last\_name, department\_id from employee e where not exists (select department\_ld from department d where d.departmenLld=e.department\_ld)
11. SQL > Select name from department d where not exists (select last\_name from employee e where d.departmenLldee.department.\_ld)
12. SQL > Select employee\_ld, last\_name, salary, department\_ld from employee e where salary

> (select avg(salary) from employee where department\_id=e.department\_ld)

1. SQL > Select employee\_ld, lasLname, name from employee e, department d where e.department\_id=d.department\_id
2. SQL > Select employee\_id, last\_name, function from employee e, job j where e.job\_ldaj.Job\_ld

SO. SQL > Select employee\_ld, last\_name, name, reglonal\_group from employee e, department

**d, location I where e.department\_id=d.departmenLldand d.location\_id=l,location\_id**

1. SQL > Select name, count(') from employee e, department **d** where

**d.department\_ld=e.department\_ld group by name**

1. **SQL > Select name, count(•) from employee e, department d where**

d.departmenLld=e.department\_ldgroup by name having name='SALES'

1. **SQL > Select name, count(\*) from employee *e,* department d where**

d.departmenUd=e.departmenLld group by name having count (\*)>=5 order by name

1. SQL > Select function, count(•) from employee e, Job J where J.Job\_ld=e.Job\_ld group by

**function**

1. **SQL > Select reglonal\_group, count("') from employee e, department d, location I where e.department\_ld=d.department\_ld and d.locatlon\_ld=l.locatlon\_ld and regional\_group='NEW YORK' group by regional\_group**
2. SQL > Select employee\_id, last\_name, grade\_ld from employee e, salary\_grade s where

**salary between lower\_bound and upper\_bound order by last\_name**

1. **SQL > Select grade\_id, countC-') from employee e, salary\_grade s where salary between lower\_bound and upper\_bound group by grade\_ld order by grade\_ld desc**

**SB. SQL > Select grade\_id, count(•) from employee *e,* salary\_grade s where salary between lower\_bound and upper\_bound and tower\_bound>•2000 and lower\_bound<•SOOO group** by grade\_ld order by grade\_ld desc

1. **SQL > Select e.last\_name emp\_name, m.lasLname, mgr\_name from employee e, employee m where e.manager\_ld m.employee\_ld**
2. **SQL > Select e.last\_name emp\_name, e.salary emp\_salary, m.last\_name, mgr\_name, m.salary mgr\_salary from employee e, employee *m* where e.manager\_id=m.employee\_id and m.salary<e.salary**
3. **SQL > Select m.manager\_id, count(\*) from employee e, employee m where e.employee\_ldom.manager\_ld group by m.manager\_ld**
4. **SQL > Select last\_name, d.department\_ld, d.name from employee e, department d where**

e.departmenLid(+)=d.departmenLld

1. SQL > Select lasLname, d.departmenLld, d.name from employee e, department d where **e.department.\_id(+ )=d.department.)d and d.department,\_idln (select department.\_id from** department where name IN ('SALES','OPERATIONS'))
2. SQL > Select function from Job where job\_ld In (Select Job\_ld from employee where **departmenLld=(select departmenLid from department where name='SALES')) union Select function from job where job\_ld In (Select job\_ld from employee where department\_id=(select departmenLld from department where name='ACCOUNTING'))**
3. SQL > Select function from Job where Job\_id In (Select Job\_ld from employee where **department\_id=(select department\_id from department where name='SALfS')) union all** Select function from job where Job\_id In (Select Job\_id from employee where department\_id=(select department, ld from department where name='ACCOUNTING'))
4. **SQL > Select function from job where job\_id in (Select job\_id from employee where** department\_ld=(select departmenLld from department where name='RESEARCH')) **Intersect Select function from job where job\_id in (Select job\_ld from employee where** departmenLid=(select departmenLld from department where name='ACCOUNTING')) **order by function**