**SQL Queries**

1. What is Database?

a)It has organized collection of data , so that it can be easily accessed and managed.

1. Difference between DBMS and RDBMS

a)

|  |  |  |
| --- | --- | --- |
| **Sl.no** | **DBMS** | **RDBMS** |
| 1. | It stores data in the form of files. | It stores the data in the table form. |
| 2. | Designed to handle small amount of data. | Designed to handle vast(or)more amount of data. |
| 3. | Provides support only single user at a time. | Provides support for multiple user at a time. |
| 4. | Normalisation is not present. | Normalisation is present in it. |
| 5. |  |  |
|  |  |  |
|  |  |  |

1. WAQ to find the list of tables present in the database.

Query😊

Select \* form tab (or (cat));

1. WAQ to describe a table.

Query😊

Desc emp;

1. WAQTD the complete data of a table.

Query😊

Select \* from emp;

1. WAQTD the data of a particular column from a table.

Syntax😉

Select column\_name from table\_name;

Query😊

Select ename

From emp;

1. WAQTD the data from multiple columns of a table.

Syntax😉

Select coloumn-1,column-2

From table-name;

Qurey😊

Select job,sal,hiredate,ename

From emp;

1. WAQTD the employee’s name as name and hire date as DOJ for employees.

Query😊

Select ename as Name,hiredate as DOJ

From emp;

1. WAQTD the name and annual salary of the employees in the emp table.

Query😊

Select ename as Name,sal\*12 as Annual\_salary

From emp;

1. WAQTD the daily wage of the employees.

Query😊

Select sal/30 from emp;

1. WAQTD the details of all CLERKS in the emp table.

Syntax😉

Select \* from table\_name where (clause)

Qurey😊

Select \* from emp where job=’CLERK’;

1. WAQTD the name and salary of all salesmen.

Query😊

SELECT ENAME AS NAME,SAL AS SALARY

FROM EMP

WHERE JOB=’SALESMAN’;

1. WAQTD the details of all employees whose salary is more than 2500.

Query😊

SELECT \* FROM EMP

WHERE SAL>2500;

1. WAQTD the details of the employees who joined the company after 3rd jan 85.

Query😊

SELECT \* FROM EMP

WHERE HIREDATE>’03-JAN-85’;

1. WAQTD the details of the employees whose annual salary is more than 10000.

Query😊

SEKECT \* FROM EMP

WHERE SAL\*12>1000;

1. WAQTD the statement like “ SMITH EARNS THE SALARY 800 EVERY MONTH.” (||)

Query😊

SELECT ENAME||’ THE SALARY ’||SAL||’ EVERY MONTH’

FROM EMP;

1. WAQTD the details of the employees in increasing order of their salary.

Query😊

SELECT \*

FROM EMP

ORDER BY SAL;

1. WAQTD the details of the employees in the order they joined the company.  
   Query😊

SELECT \* FROM EMP

ORDER BY HIREDATE;

1. WAQTD the details of all department 20 employees.

Query😊

SELECT \* FROM EMP

WHERE DEPTNO=20;

1. WAQTD the details of all clerks from department 20.

Query😊

SELECT \* FROM EMP

WHERE DEPTNO=20 and job=’CLERK’;

1. WAQTD the details of all employees from department 10 having salary more than 1000.

Query😊

SELECT \* FROM EMP

WHERE DEPTNO=10 AND SAL>1000;

1. WAQTD the details of all managers from department 30 joined before 22-05-86.

Query😊

SELECT \* FROM EMP

WHERE DEPTNO=30 AND HIREDATE<’22-MAY-86’;

1. WAQTD the details of employees from department 10 and 30 having salary more than 1200.

Query😊

SELECT \* FROM EMP

WHERE DEPTNO IN(10,20) AND SAL>1200;

1. WAQTD the date of joining of all clerks and managers from department 10 and 30.

Query😊

SELECT HIREDATE AS DOJ,JOB,DEPTNO FROM EMP

WHERE DEPTNO IN (20,30) AND JOB=’CLERK’;

1. WAQTD the details of employees who are not managers.

Query😊

SELECT \* FROM EMP

WHERE JOB !=’MANAGER’;

(OR)

SELECT \* FROM EMP

WHERE JOB <>’MANAGER’;

1. WAQTD the details of employees who are neither salesmen nor clerks.

Query😊

SELECT \* FROM EMP

WHERE NOT(JOB=’CLERK’ OR JOB=’SALESMAN’);

1. WAQTD name of all clerks and managers accept from dept 20.

Query😊  
 SELECT ENAME,JOB,DEPTNO

FROM EMP

WHERE NOT JOB IN(’MANAGER’,’CLERK’)

AND DEPTNO=20;

1. WAQTD the details of all clerks and salesman who joined the company after 18-01-85.

Query😊

SELECT \*FROM EMP

WHERE (JOB =‘CLERK’ OR JOB=’SALSEMAN’) AND HIREDATE>’18-JAN-85’;

1. WAQTD the name and deptno of employees from department 10,20,30 and 40.

Query😊

SELECT ENAME,DEPTNO

FROM EMP

WHERE DEPTNO IN (10,20,30,40);

1. WAQTD the names of all clerks from deptno 10,20,30 and 50.

Query😊

SELECT ENAME AS NAME ,DEPTNO

FROM EMP

WHERE JOB=’CLERK’ AND DEPTNO IN (10,20,30,50);

1. WAQTD the details of the employees who join the company after 11-01-82 and before 11-02-89.

Query😊

SELECT \* FROM EMP

WHERE (HIREDATE BETWEEN ’11-JAN-82’ AND ’11-FEB-89’);

1. WAQTD the details of all mangers and salesman who annual salary is between 10000 to 20000.

Query😊

SELECT JOB FROM EMP

WHERE (SAL\*12 BETWEEN 10000 AND 20000);

1. WAQTD the details of all employees whose name starts with ‘S’

Query😊

SELECT \* FROM EMP

WHERE ENAME LIKE ’S%’;

1. WAQTD the details of all clerks, salesmen and managers from whose name ends with ‘S’.

Query😊

SELECT \* FROM EMP

WHERE ENAME LIKE ’%S’;

1. WAQTD the details of all employees whose name has 5 character

Query😊

SELECT \* FROM EMP

WHERE ENAME LIKE ‘ ’;

1. WAQTD the details of all employees whose name second last character is ‘T’

Query😊

SELECT \* FROM EMP

WHERE ENAME LIKE’%T\_’;

1. WAQTD the details of the employees who don't have comm.

Query😊

SELECT \* FROM EMP

WHERE comm is null;

1. WAQTD the details of the employees who joined the company in the year 82.

Query😊

SELECT \* FROM EMP

WHERE HIREDATE LIKE ‘%82’;

1. WAQTD the details of the employees who joined in the month ‘DEC’

Query😊

SELECT \* FROM EMP

WHERE HIREDATE LIKE ’%DEC%’;

1. WAQTD the details of the maximum salary

Query😊

SELECT \* FROM EMP   
WHERE SAL=(SELECT MAX(SAL) FROM EMP);

1. WAQTD the average salary

Query😊

SELECT AVG(SAL) AS AVERAGE\_SALARY FROM EMP;

1. WAQTD the max salary for each department

Query😊

SELECT MAX(SAL),DEPTNO

FROM EMP

GROUP BY JOB;

1. WAQTD the details of the lowest-paid employee from each department.

Query😊

SELECT MIN(SAL),DEPTNO

FROM EMP

ORDER BY DEPTNO;

1. WAQTD the count of the employees present in each job group.

Query😊

SELECT JOB,COUNT(\*)

FROM EMP

GROUP BY JOB;

1. WAQTD the dept which has more than 3 employees

Query😊

SELECT COUNT(DEPTNO )

FROM EMP

GROUP BY DEPTNO

HAVING COUNT(DEPTNO)>3;

1. WAQTD the total salary of each job and select only if the total salary is less than 7000.

Query😊

SELECT SUM(SAL) AS TOTAL\_SALARY,JOB

FROM EMP

GROUP BY JOB

HAVING SUM(SAL)>7000;

1. WAQTD the total salary of all salesmen and clerks.

Query😊

SELECT SUM(SAL) AS TOTAL\_SALARY,JOB

FROM EMP

GROUP BY JOB

HAVING JOB IN (‘SALSEMAN’,’CLERK’);

1. WAQTD the average salary of each job

Query😊

SELECT AVG(SAL),JOB

FROM EMP

GROUP BY JOB;

1. WAQTD the name and job of highest paid clerk

Query😊

SELECT ENAME,JOB,SAL

FROM EMP

WHERE SAL=(SELECT MAX(SAL) FROM EMP GROUP BY JOB HAVING JOB=’CLERK’);

1. WAQTD the details of first clerk joined the company

Query😊

SELECT \* FROM EMP

WHERE HIREDATE=(SELECT MIN(HIREDATE) FROM EMP GROUP BY JOB HAVING JOB =’CLERK’);

1. WAQTD the types of job in the employee table

Query😊

SELECT JOB AS TYPES\_OF\_JOBS

FROM EMP;

1. WAQTD the details of the employees whose salary is more than Smith.

Query😊

SELECT \*

FROM EMP

WHERE SAL>(SELECT SAL FROM EMP WHERE ENAME=’SMITH’);

1. WAQTD the details of the employees who joined the company after Ward.

Query😊

SELECT \*

FROM EMP

WHERE HIREDATE>(SELECT HIREDATE FROM EMP WHERE ENAME=’WARD’);

1. WAQTD the details of the clerks who joined in the same department as Turner.

Query😊

SELECT \*

FROM EMP

WHERE DEPTNO=(SELECT DEPTNO FROM EMP WHERE ENAME=’TURNER’) AND JOB=’CLERK’;

1. WAQTD the name and salary of the employees who joined the company before Smith as salesman.

Query😊

SELECT ENAME AS NAME, SAL AS SALARY

FROM EMP

WHERE HIREDATE < (SELECT HIREDATE FROM EMP

WHERE ENAME=’SMITH’) AND JOB = ’SALSEMAN’;

1. WAQTD the location of the employees who joined the company in the same department of Smith.

Query😊

SELECT LOC AS LOCATION

FROM DEPT

WHERE DEPTNO = (SELECT DEPTNO FROM EMP WHERE ENAME=’SMITH’);

1. WAQTD the employees detail whose designation is similar to that of employee number 7902.

Query😊

SELECT \* FROM EMP

WHERE JOB = (SELECT JOB FROM EMP WHERE MGR=7902);

1. WAQTD the details of the department details of the employees whose department is similar to that of Turner.

Query😊

SELECT \* FROM EMP WHERE DEPTNO =(SELECT DEPTNO FROM EMP WHERE ENAME=’TURNER’);

1. WAQTD the details of the employees working in the same department of Miller and job is similar as Scott.

Query😊

SELECT \* FROM EMP

WHERE DEPTNO=(SELECT DEPTNO FROM EMP WHERE ENAME =’MILLER’) AND JOB = (SELECT JOB FROM EMP WHERE ENAME = ’SCOTT’);

1. WAQTD the details of the employees who joined the company after Smith and name start with ‘S’

Query😊

SELECT \* FROM EMP

WHERE HIREDATE>(SELECT HIREDATE FROM EMP WHERE ENAME=’SMITH’) AND ENAME LIKE ‘S%’;

1. WAQTD the name of the employees who neither work in the department of Smith or Miller.

Query😊

SELECT ENAME FROM EMP

WHERE DEPTNO NOT IN (SELECT DEPTNO FROM EMP WHERE ENAME IN (‘SMITH’ , ’MILLER’ ));

1. WAQTD the details of the employees who belong to the RESEARCH department.

Query😊

SELECT \* FROM EMP WHERE DEPTNO=(SELECT DEPTNO FROM DEPT WHERE DNAME =’RESEARCH’);

1. WAQTD the name and the department name of the employees

Query😊

SELECT ENAME AS NAME,DNAME AS DEPARTMENT\_NAME

FROM EMP,DEPT

WHERE EMP.DEPTNO=DEPT.DEPTNO;

1. WAQTD the name and the department details of the employees

Query😊

SELECT ENAME AS NAME ,DEPT.\*

FROM EMP,DEPT

WHERE EMP.DEPTNO=DEPT.DEPTNO;

1. WAQTD the employees details with their loc

Query😊

SELECT EMP.\*, LOC AS LOCATION

FROM EMP,DEPT

WHERE EMP.DEPTNO=DEPT.DEPTNO;

1. WAQTD the details of employees with department details

Query😊

SELECT EMP.\*,DEPT.\*

FROM EMP,DEPT

WHERE EMP.DEPTNO=DEPT.DEPTNO;

1. WAQTD the name, location, hiredate and salary of all clerks and managers

Query😊

SELECT ENAME,HIREDATE,SAL,LOC

FROM EMP,DEPT

WHERE EMP.DEPTNO=DEPT.DEPTNO AND JOB IN ('CLERK','MANAGER');

1. WAQTD the employees details along with their department details who is earning more than SMITH.

Query😊

SELECT EMP.\*,DEPT.\*

FROM EMP,DEPT

WHERE EMP.DEPTNO=DEPT.DEPTNO AND

SAL>(SELECT SAL FROM EMP WHERE ENAME=’SMITH’);

1. WAQTD the employees details of the employees from the research and accounting department.

Query😊

SELECT \*

FROM EMP,DEPT

WHERE EMP.DEPTNO=DEPT.DEPTNO AND

DNAME IN(‘RESEARCH’,’ACCOUTNING’);

1. WAQTD the employees who are not working in DALLAS.

Query😊

SELECT \* FROM EMP,DEPT

WHERE LOC <> ‘DALLAS’ AND EMP.DEPTNO=DEPT.DEPTNO;

1. WAQTD the details of the employees with locations who don't have commission.

Query😊

SELECT EMP.\*,LOC

FROM EMP,DEPT

WHERE COMM IS NULL AND EMP.DEPTNO=DEPT.DEPTNO;

1. WAQTD the details of the employees from grade 1 and grade 2.

Query😊

SELECT \*

FROM EMP,SALGRADE

WHERE GRADE IN (1,2) AND SAL BETWEEN LOSAL AND HISAL;

1. WAQTD the details of all salesmen and managers from grade 1 and grade 2.

Query😊

SELECT \* FROM EMP, SALGRADE

WHERE SAL BETWEEN LOSAL AND HISAL AND GRADE IN(1,2) AND JOB IN('SALESMAN','MANAGER');

1. WAQTD the details of the employees from dallas and delhi who are not salesmen or clerks.

Query😊

SELECT EMP.\* FROM EMP,DEPT

WHERE LOC IN (‘DALLAS’,’DELHI’) AND JOB NOT IN(‘SALSEMAN’,’CLERK’) AND EMP.DEPTNO=DEPT.DEPTNO;

1. WAQTD the details of the employees of the employees along with their manager’s name.

Query😊

SELECT E.\*,M.ENAME AS MANAGER\_NAME

FROM EMP E,EMP M

WHERE E.MGR=M.EMPNO;

1. WAQTD the name of the employees and department name along with their managers name and department name.

Qurey😊

SELECT E.ENAME,M.ENAME AS MANAGER\_NAME,DNAME

FROM EMP E,EMP M,DEPT

WHERE E.MGR=M.EMPNO AND E.DEPTNO=DEPT.DEPTNO;

1. WAQTD the name of the employees working for the same salary.

Query😊

SELECT E.ENAME,M.ENAME

FROM EMP E,EMP M

WHERE E.SAL=M.SAL AND E.ENAME<>M.ENAME;

1. WAQT create a table with 2 columns

Query😊

CREATE TABLE STUDENTS (ID NUMBERS(5) PRIMARY KEY,ENAME VARCHAR2(20));

1. WAQT create a table with 5 columns having one column as primary key, and other not null.

Query😊

CREATE TABLE STUDENTS (ID NUMBER(5) PRIMARY KEY,ENAME VARCHAR2(20),DOJ DATE,STREEM VARCHAR2(4), MOBILE\_NUMBER NUMBER(10) ) ;

1. WAQT copy the data present in the employee table to a new table.

Query😊

CREATE TABLE EMP1 AS SELECT \* FROM EMP;

1. WAQT changes the constraint of a column.

Query😊

CREATE TABLE STUDENTS\_2 (ID NUMBER(5) PRIMARY KEY,ENAME VARCHAR2(20) UNIQUE,DOJ DATE NOT NULL,STREEM VARCHAR2(4) NOT NULL, MOBILE\_NUMBER NUMBER(10) ) ;

1. WAQTD the details of the highest-paid employee.

Query😊

SELECT \* FROM EMP

WHERE SAL=(SELECT MAX(SAL) FROM EMP );

1. WAQTD the details of the employees whose sal is more than the average salary and working for department 30.

Query😊

SELECT \* FROM EMP

WHERE SAL>(SELECT AVG(SAL) FROM EMP WHERE DEPTNO=30);

1. WAQTD the details of the employees and their location for department 30 employees.

Query😊

SELECT EMP.\*,LOC FROM EMP,DEPT

WHERE EMP.DEPTNO=DEPT.DEPTNO AND LOC=(SELECT LOC FROM DEPT WHERE DEPTNO=30);

1. WAQTD the details of the employees along with their grades for all salesmen, clerks, and managers.

Query😊

SELECT EMP.\*,SALGRADE.GRADE

FROM EMP, SALGRADE WHERE SAL BETWEEN LOSAL AND HISAL AND JOB IN(‘SLASEMAN’,’CLERK’,’MANAGER’) ;

1. WAQTD the details of the managers and analysts who work for grades 3 or 4.

Query😊

SELECT \* FROM EMP,SALGRADE

WHERE SAL BETWEEN LOSAL AND HISAL

AND JOB IN(‘MANAGER’,’ANALYST’) AND (GRADE=3 OR GRADE =4);

1. WAQTD the name of the employees along with there manager’s name.

Query😊

SELECT E.ENAME,M.ENAME AS MANAGER\_NAME

FROM EMP E,EMP M

WHERE E.MGR=M.EMPNO;

1. WAQTD the name of the employees along with their manager’s name, employee department name, and mangers department name.

Query😊

SELECT E.ENAME,M.ENAME AS MANAGER\_NAME,DNAME AS DEPARTMENT\_NAME,DNAME AS MANAGERS\_DEPTNAME

FROM EMP E,EMP M,DEPT

WHERE E.MGR=M.EMPNO;

1. WAQTD the name of the employees having the same salary.

Query😊

SELECT E.ENAME,M.ENAME

FROM EMP E,EMP M

WHERE E.SAL=M.SAL AND E.MGR=M.EMPNO;

1. WAQTD the employee’s name, employee manager’s name, and employee grade, and manger’s grade.
2. WAQTD the highest paid employees details
3. Waqtd the lowest paid employees details
4. Waqtd the details of the employees whose name has minimum 6 characters.
5. Waqtd the name and annual salary of the employees who joined the company first.

Query😊

SELECT ENAME AS NAME,SAL\*12 AS ANNUAL\_SALARY

FROM EMP ORDER BY HIREDATE

1. Waqtd the details of the highest paid employees who dont have comm.

Query😊

SELECT \* FROM EMP

WHERE COMM IS NOT NULL;

1. What is normalization and advantages of normalization
2. When do we go for 1NF.
3. When do we go for 2NF
4. When do we go for 3NF
5. When do we go for BCNF.