To fetch ALTERNATE records from a table. (EVEN NUMBERED)  
select \* from emp where rowid in (select decode(mod(rownum,2),0,rowid, null) from emp);

To select ALTERNATE records from a table. (ODD NUMBERED)

select \* from emp where rowid in (select decode(mod(rownum,2),0,null ,rowid) from emp);

Find the 3rd MAX salary in the emp table.  
select distinct sal from emp e1 where 3 = (select count(distinct sal) from emp e2 where e1.sal <= e2.sal);

Find the 3rd MIN salary in the emp table.  
select distinct sal from emp e1 where 3 = (select count(distinct sal) from emp e2where e1.sal >= e2.sal);

Select FIRST n records from a table.  
select \* from emp where rownum <= &n;

Select LAST n records from a table  
select \* from emp minus select \* from emp where rownum <= (select count(\*) - &n from emp);

List dept no., Dept name for all the departments in which there are no employees in the department.

**SELECT** **\*** **FROM** DEPARTMENTS **WHERE** DEPARTMENT\_ID

**NOT** **IN(SELECT** **DISTINCT** DEPARTMENT\_ID **FROM** EMPLOYEES **WHERE** DEPARTMENT\_ID **IS** **NOT** **NULL);**

**SELECT** **\*** **FROM** DEPARTMENTS DEP **WHERE** **NOT** **EXISTS(SELECT** **\*** **FROM** EMPLOYEES EMP **WHERE** EMP**.**DEPARTMENT\_ID**=**DEP**.**DEPARTMENT\_ID**);**

**SELECT** DEP**.**DEPARTMENT\_ID **FROM**

EMPLOYEES EMP

**RIGHT** **OUTER** **JOIN**

DEPARTMENTS DEP

**ON** EMP**.**DEPARTMENT\_ID**=**DEP**.**DEPARTMENT\_ID

**WHERE** EMP**.**DEPARTMENT\_ID **IS** **NULL;**

How to get 3 Max salaries?

**SELECT** **\*** **FROM** EMPLOYEES A **WHERE** 3 **>=** **(SELECT** **COUNT(DISTINCT** SALARY**)** **FROM** EMPLOYEES B **WHERE** A**.**SALARY **<=** B**.**SALARY**);**

**SELECT** **\*** **FROM(**

**SELECT** A**.\*,** **DENSE\_RANK()** **OVER(ORDER** **BY** SALARY **DESC)** **AS** DRNK **FROM** EMPLOYEES A**)**

**WHERE** DRNK **<=**3**;**

**SELECT** **\*** **FROM** EMPLOYEES **WHERE** SALARY **IN(**

**SELECT** SALARY **FROM** **(**

**SELECT** SALARY**,** **ROWNUM** R **FROM(**

**SELECT** **DISTINCT(**SALARY**)** **FROM** EMPLOYEES

**ORDER** **BY** SALARY **DESC)**

**)** **WHERE** R **<=** 3**);**

How to get 3 Min salaries?

**SELECT** **\*** **FROM** EMPLOYEES A **WHERE** 3 **>=** **(SELECT** **COUNT(DISTINCT** SALARY**)** **FROM** EMPLOYEES B **WHERE** A**.**SALARY **>=** B**.**SALARY**);**

**SELECT** **\*** **FROM(**

**SELECT** A**.\*,** **DENSE\_RANK()** **OVER(ORDER** **BY** SALARY **)** **AS** DRNK **FROM** EMPLOYEES A**)**

**WHERE** DRNK **<=**3**;**

**SELECT** **\*** **FROM** EMPLOYEES **WHERE** SALARY **IN(**

**SELECT** SALARY **FROM** **(**

**SELECT** SALARY**,** **ROWNUM** R **FROM(**

**SELECT** **DISTINCT(**SALARY**)** **FROM** EMPLOYEES

**ORDER** **BY** SALARY**)**

**)** **WHERE** R **<=** 3**);**

How to get nth max salaries ?  
select distinct hiredate from emp a where &n = (select count(distinct sal) from emp b where a.sal >= b.sal);

Select DISTINCT RECORDS from emp table.  
**SELECT** **DISTINCT** FIRST\_NAME **FROM** EMPLOYEES**;**

**SELECT** **\*** **FROM** EMPLOYEES A **WHERE** ROWID **IN(SELECT** **MAX(**ROWID**)** **FROM** EMPLOYEES B **WHERE** A**.**FIRST\_NAME **=** B**.**FIRST\_NAME**);**

How to delete duplicate rows in a table?  
delete from emp a where rowid != (select max(rowid) from emp b where a.empno=b.empno);

Count of number of employees in department wise.  
**SELECT** **COUNT(**EMP**.**EMPLOYEE\_ID**),** DEP**.**DEPARTMENT\_ID**,** DEP**.**DEPARTMENT\_NAME

**FROM** EMPLOYEES EMP **INNER** **JOIN**

DEPARTMENTS DEP **ON** EMP**.**DEPARTMENT\_ID **=** DEP**.**DEPARTMENT\_ID

**GROUP** **BY** DEP**.**DEPARTMENT\_ID**,** DEP**.**DEPARTMENT\_NAME**;**

Suppose there is annual salary information provided by emp table. How to fetch monthly salary of each and every employee?  
  
select ename,sal/12 as monthlysal from emp;  
  
Select all record from emp table where deptno =10 or 40.  
  
select \* from emp where deptno=30 or deptno=10;  
  
Select all record from emp table where deptno=30 and sal>1500.  
  
select \* from emp where deptno=30 and sal>1500;  
  
Select all record from emp where job not in SALESMAN or CLERK.  
  
select \* from emp where job not in ('SALESMAN','CLERK');  
  
Select all record from emp where ename in 'BLAKE','SCOTT','KING'and'FORD'.  
  
select \* from emp where ename in('JONES','BLAKE','SCOTT','KING','FORD');  
  
Select all records where ename starts with ‘S’ and its lenth is 6 char.  
  
select \* from emp where ename like'S\_\_

1. What is Primary Key and Unique Key?

Unique key – Duplicates not allowed, null values are allowed, there can be multiple unique keys on table.

Primary Key – Only one key per table, null columns are not allowed in the table.

2. Difference Between DROP, DELETE & TRUNCATE

Ans – Drop – Drops the table and after commit the table data wont be received

Delete – Delete data from table, data can be selected based on where condition, after delete once committed data cant be received.

Truncate – Truncate is dropping the whole data, it has auto commit so data cant be recoved.  
  
3. Different types of Normalization

1st form of normalization

2nd form of normalization

3rd form of normalization.  
  
4. What are views in SQL?

Ans – View is sudo table created over existing table.

View can be created after joining multiple table and based on specific data.

5. Difference between Having and Where Clause  
  
6. What is a Subquery?  
  
7. Difference Between Rank, Dense\_Rank function  
  
8 . Case Manipulation functions in SQL  
  
9. What is a stored procedure?  
  
10. Different types of relationships in SQL

1. How to find duplicates in a table

**SELECT FIRST\_NAME , COUNT(\*) FROM TEMP\_EMP GROUP BY FIRST\_NAME**

**HAVING COUNT(\*) > 1**

2- How to delete duplicates from a table

**SELECT \* from TEMP\_EMP**

**where rowid not in**

**(select max(rowid) from TEMP\_EMP group by FIRST\_NAME);**

**SELECT \* from TEMP\_EMP e1**

**where rowid not in**

**(select max(rowid) from TEMP\_EMP e2**

**where e1.FIRST\_NAME = e2.FIRST\_NAME );**

**ROLLBACK**

**SELECT \* from TEMP\_EMP where rowid in**

**(**

**select rid from**

**(**

**select rowid rid,**

**row\_number() over(partition by FIRST\_NAME order by FIRST\_NAME) rn**

**from TEMP\_EMP**

**)**

3- Difference between union and union all  
4- Difference between rank, row\_number and dense\_rank  
5- Find records in a table which are not present in another table

6- Find second highest salary employees in each department

**SELECT A.\* FROM**

**(**

**SELECT TEMP\_EMP.\*, ROW\_NUMBER() OVER(PARTITION BY DEPARTMENT\_ID ORDER BY SALARY DESC) AS RNK, COUNT(\*) OVER(PARTITION BY DEPARTMENT\_ID) AS CNT FROM TEMP\_EMP**

**) A**

**WHERE A.RNK=2 OR (A.RNK=1 AND A.CNT=1)**

7- Find employees with salary more than their manager's salary  
8- Difference between inner and left join  
9- update a table and swap gender values.  
10- Number of records in output with different kinds of join.