DBMS LABORATORY ASSIGNMENT 1

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SECTION - **CSE 16**
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CREATION OF TABLE :

```
SQL> create table emp(empno number(4,0),
  2    ename varchar2(10),
  3    job varchar2(9),
  4    mgr number(4,0),
  5    hiredate date,
  6    sal number(7,2),
  7    comm number(7,2),
  8    deptno number(2,0) );

Table created.
```

INSERTION INTO TABLE:

```
SQL> Insert into emp(empno,ename,job,mgr,hiredate,sal,deptno) values (7369,'SMITH','CLERK',7902,'17-DEC-80',800,20);

1 row created.

SQL> Insert into emp(empno,ename,job,mgr,hiredate,sal,comm,deptno) values (7499,'ALLEN','SALESMAN',7698,'20-FEB-81',1600,300,30);

1 row created.

SQL> Insert into emp(empno,ename,job,mgr,hiredate,sal,comm,deptno) values (7521,'WARD','SALESMAN',7698,'22-FEB-81',1250,500,30);

1 row created.

SQL> Insert into emp values (7566,'JONES','MANAGER',7839,'02-APR-81',2975,NULL,20);

1 row created.

SQL> Insert into emp values (7654,'MARTIN','SALESMAN',7698,'28-SEP-81',1250,1400,30);

1 row created.

SQL> Insert into emp values (7698,'BLAKE','MANAGER',7839,'01-MAY-81',2850,NULL,30);

1 row created.

SQL> Insert into emp values (7782,'CLARK','MANAGER',7839,'09-JUN-81',2450,NULL,10);

1 row created.

SQL> Insert into emp values (7788,'SCOTT','ANALYST',7566,'09-NOV-81',3000,NULL,20);

1 row created.

SQL> Insert into emp values (7839,'KING','PRESIDENT',NULL,'17-NOV-81',5000,NULL,10);

1 row created.

SQL> Insert into emp values (7844,'TURNER','SALESMAN',7698,'08-SEP-81',1500,0,30);

1 row created.

SQL> Insert into emp values (7876,'ADAMS','CLERK',7788,'23-SEP-81',1100,NULL,20);

1 row created.

SQL> Insert into emp values (7900,'JAMES','CLERK',7698,'03-DEC-81',950,NULL,30);

1 row created.

SQL> Insert into emp values (7902,'FORD','ANALYST',7566,'03-DEC-81',3000,NULL,20);

1 row created.

SQL> Insert into emp values (7934,'MILLER','CLERK',7782,'23-JAN-82',1300,NULL,10);

1 row created.

SQL> Insert into emp (empno,ename) values (5643, 'ANIRBAN');

1 row created.

SQL> commit;

Commit complete.
```

1. Display all the information of the emp Table.

```
SQL> set pagesize 50000;
SQL> select * from emp;

    EMPNO ENAME      JOB            MGR HIREDATE         SAL       COMM     DEPTNO
---------- ---------- --------- ---------- --------- ---------- ---------- ----------
      7369 SMITH      CLERK          7902 17-DEC-80        800                    20
      7499 ALLEN      SALESMAN       7698 20-FEB-81       1600        300         30
      7521 WARD       SALESMAN       7698 22-FEB-81       1250        500         30
      7566 JONES      MANAGER        7839 02-APR-81       2975                    20
      7654 MARTIN     SALESMAN       7698 28-SEP-81       1250       1400         30
      7698 BLAKE      MANAGER        7839 01-MAY-81       2850                    30
      7782 CLARK      MANAGER        7839 09-JUN-81       2450                    10
      7788 SCOTT      ANALYST        7566 09-NOV-81       3000                    20
      7839 KING       PRESIDENT           17-NOV-81       5000                    10
      7844 TURNER     SALESMAN       7698 08-SEP-81       1500          0         30
      7876 ADAMS      CLERK          7788 23-SEP-81       1100                    20
      7900 JAMES      CLERK          7698 03-DEC-81        950                    30
      7902 FORD       ANALYST        7566 03-DEC-81       3000                    20
      7934 MILLER     CLERK          7782 23-JAN-82       1300                    10
      5643 ANIRBAN

15 rows selected.
```

2. Display unique Jobs from EMP table.

```
SQL> select distinct job from emp;

JOB
---------
CLERK
SALESMAN
MANAGER
ANALYST
PRESIDENT


6 rows selected.
```

3. List the details of the emps in asc order of the Department and desc of jobs.

```
SQL> select * from emp order by deptno asc,job desc;

    EMPNO ENAME      JOB            MGR HIREDATE         SAL       COMM     DEPTNO
---------- ---------- --------- ---------- --------- ---------- ---------- ----------
      7839 KING       PRESIDENT           17-NOV-81       5000                    10
      7782 CLARK      MANAGER        7839 09-JUN-81       2450                    10
      7934 MILLER     CLERK          7782 23-JAN-82       1300                    10
      7566 JONES      MANAGER        7839 02-APR-81       2975                    20
      7369 SMITH      CLERK          7902 17-DEC-80        800                    20
      7876 ADAMS      CLERK          7788 23-SEP-81       1100                    20
      7788 SCOTT      ANALYST        7566 09-NOV-81       3000                    20
      7902 FORD       ANALYST        7566 03-DEC-81       3000                    20
      7654 MARTIN     SALESMAN       7698 28-SEP-81       1250       1400         30
      7844 TURNER     SALESMAN       7698 08-SEP-81       1500          0         30
      7521 WARD       SALESMAN       7698 22-FEB-81       1250        500         30
      7499 ALLEN      SALESMAN       7698 20-FEB-81       1600        300         30
      7698 BLAKE      MANAGER        7839 01-MAY-81       2850                    30
      7900 JAMES      CLERK          7698 03-DEC-81        950                    30
      5643 ANIRBAN

15 rows selected.
```

4. Display all the unique job groups in descending order

```
SQL> select distinct job from emp order by job desc;

JOB
---------

SALESMAN
PRESIDENT
MANAGER
CLERK
ANALYST

6 rows selected.
```

5. Display all the Details of all Managers

```
SQL> Select * from emp where empno in (select mgr from emp) ;

    EMPNO ENAME      JOB            MGR HIREDATE          SAL       COMM     DEPTNO
---------- ---------- --------- ---------- --------- ---------- ---------- ----------
     7902 FORD       ANALYST       7566 03-DEC-81       3000                    20
     7698 BLAKE      MANAGER       7839 01-MAY-81       2850                    30
     7839 KING       PRESIDENT          17-NOV-81       5000                    10
     7566 JONES      MANAGER       7839 02-APR-81       2975                    20
     7788 SCOTT      ANALYST       7566 09-NOV-81       3000                    20
     7782 CLARK      MANAGER       7839 09-JUN-81       2450                    10

6 rows selected.
```

6. List the emps who joined before 1981

```
SQL>  select * from emp where hiredate < ('01-JAN-81');

    EMPNO ENAME      JOB            MGR HIREDATE          SAL       COMM     DEPTNO
---------- ---------- --------- ---------- --------- ---------- ---------- ----------
     7369 SMITH      CLERK         7902 17-DEC-80        800                    20
```

7. List the Empno , Ename,Sal, Daily Sal of all the Employees in the Asc

```
SQL> select empno,ename,sal,sal/30 Daily_Sal from emp order by sal asc;

    EMPNO ENAME           SAL  DAILY_SAL
---------- ---------- ---------- ----------
     7369 SMITH           800 26.6666667
     7900 JAMES           950 31.6666667
     7876 ADAMS          1100 36.6666667
     7521 WARD           1250 41.6666667
     7654 MARTIN         1250 41.6666667
     7934 MILLER         1300 43.3333333
     7844 TURNER         1500         50
     7499 ALLEN          1600 53.3333333
     7782 CLARK          2450 81.6666667
     7698 BLAKE          2850         95
     7566 JONES          2975 99.1666667
     7902 FORD           3000        100
     7788 SCOTT          3000        100
     7839 KING           5000 166.666667
     5643 ANIRBAN

15 rows selected.
```

8. Display The Empno,Ename,Sal,Exp of all emps working for Managers 7839.

```
SQL> select empno,ename,sal,months_between(sysdate,hiredate) exp from emp where mgr = 7839;

    EMPNO ENAME              SAL        EXP
---------- ---------- ---------- ----------
     7566 JONES             2975 489.865178
     7698 BLAKE             2850 488.897436
     7782 CLARK             2450 487.639372
```

9. Display the details of the emps whose Comm is more than their sal

```
SQL> select * from emp where comm > sal;

    EMPNO ENAME      JOB              MGR HIREDATE        SAL       COMM     DEPTNO
---------- ---------- --------- ---------- --------- ---------- ---------- ----------
     7654 MARTIN     SALESMAN        7698 28-SEP-81       1250       1400         30
```

10. Display the empno,ename,job,hiredate , exp of all Managers.

```
SQL>  Select empno,ename,job,hiredate,months_between(sysdate,hiredate) exp from emp where empno in (select mgr from emp) ;

    EMPNO ENAME      JOB       HIREDATE       EXP
---------- ---------- --------- --------- ----------
     7902 FORD       ANALYST   03-DEC-81 481.833046
     7698 BLAKE      MANAGER   01-MAY-81 488.897562
     7839 KING       PRESIDENT 17-NOV-81 482.381433
     7566 JONES      MANAGER   02-APR-81 489.865304
     7788 SCOTT      ANALYST   09-NOV-81 482.639497
     7782 CLARK      MANAGER   09-JUN-81 487.639497

6 rows selected.
```

11. Display the emps in the asc order of Designations.

```
SQL> select * from emp order by job asc;

    EMPNO ENAME      JOB              MGR HIREDATE        SAL       COMM     DEPTNO
---------- ---------- --------- ---------- --------- ---------- ---------- ----------
     7788 SCOTT      ANALYST         7566 09-NOV-81       3000                    20
     7902 FORD       ANALYST         7566 03-DEC-81       3000                    20
     7369 SMITH      CLERK           7902 17-DEC-80        800                    20
     7934 MILLER     CLERK           7782 23-JAN-82       1300                    10
     7900 JAMES      CLERK           7698 03-DEC-81        950                    30
     7876 ADAMS      CLERK           7788 23-SEP-81       1100                    20
     7698 BLAKE      MANAGER         7839 01-MAY-81       2850                    30
     7566 JONES      MANAGER         7839 02-APR-81       2975                    20
     7782 CLARK      MANAGER         7839 09-JUN-81       2450                    10
     7839 KING       PRESIDENT            17-NOV-81       5000                    10
     7844 TURNER     SALESMAN        7698 08-SEP-81       1500          0         30
     7521 WARD       SALESMAN        7698 22-FEB-81       1250        500         30
     7499 ALLEN      SALESMAN        7698 20-FEB-81       1600        300         30
     7654 MARTIN     SALESMAN        7698 28-SEP-81       1250       1400         30
     5643 ANIRBAN

15 rows selected.
```

12. List the emps along with their exp and daily sal is more than Rs100

```
SQL>  select empno,ename,sal,job,mgr,comm,hiredate,deptno, months_between(sysdate,hiredate) exp from emp where (sal/30) >100;

    EMPNO ENAME              SAL JOB             MGR      COMM HIREDATE    DEPTNO        EXP
--------- ---------- ---------- --------- ---------- ---------- --------- ---------- ----------
     7839 KING             5000 PRESIDENT                      17-NOV-81         10 482.400022
```

13. List the emps who are either 'Clerk' or 'Analyst' in the desc order.

```
SQL> select * from emp where job = 'CLERK' or job = 'ANALYST' order by job desc;

    EMPNO ENAME      JOB             MGR HIREDATE         SAL       COMM     DEPTNO
--------- ---------- --------- ---------- --------- ---------- ---------- ----------
     7369 SMITH      CLERK          7902 17-DEC-80        800                    20
     7876 ADAMS      CLERK          7788 23-SEP-81       1100                    20
     7900 JAMES      CLERK          7698 03-DEC-81        950                    30
     7934 MILLER     CLERK          7782 23-JAN-82       1300                    10
     7902 FORD       ANALYST        7566 03-DEC-81       3000                    20
     7788 SCOTT      ANALYST        7566 09-NOV-81       3000                    20

6 rows selected.
```

14. List the emps who joined on 1st may 1981 , 31Dec81,17Dec81,19Jan1980 in asc order of seniority.

```
SQL> select * from emp where hiredate in ('01-may-81','31-dec-81','17-dec-81','19-jan-80') order by hiredate asc;

    EMPNO ENAME      JOB             MGR HIREDATE         SAL       COMM     DEPTNO
--------- ---------- --------- ---------- --------- ---------- ---------- ----------
     7698 BLAKE      MANAGER        7839 01-MAY-81       2850                    30

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```

15. List the employees who are working for the deptno 10 or 20

```
SQL>  select * from emp where deptno = 10 or deptno = 20 ;

    EMPNO ENAME      JOB             MGR HIREDATE         SAL       COMM     DEPTNO
--------- ---------- --------- ---------- --------- ---------- ---------- ----------
     7369 SMITH      CLERK          7902 17-DEC-80        800                    20
     7566 JONES      MANAGER        7839 02-APR-81       2975                    20
     7782 CLARK      MANAGER        7839 09-JUN-81       2450                    10
     7788 SCOTT      ANALYST        7566 09-NOV-81       3000                    20
     7839 KING       PRESIDENT           17-NOV-81       5000                    10
     7876 ADAMS      CLERK          7788 23-SEP-81       1100                    20
     7902 FORD       ANALYST        7566 03-DEC-81       3000                    20
     7934 MILLER     CLERK          7782 23-JAN-82       1300                    10

8 rows selected.
```

16. List the employees who are joined in the year 1980

```
SQL> select * from emp where hiredate between '01-jan-80' and '31-dec-80';

    EMPNO ENAME      JOB             MGR HIREDATE         SAL       COMM     DEPTNO
--------- ---------- --------- ---------- --------- ---------- ---------- ----------
     7369 SMITH      CLERK          7902 17-DEC-80        800                    20
```

17. List the emps whose annual sal ranging from 22000 and 45000.

```
SQL> select * from emp where 12*sal between 22000 and 45000;

    EMPNO ENAME      JOB            MGR HIREDATE         SAL       COMM     DEPTNO
---------- ---------- --------- ---------- --------- ---------- ---------- ----------
     7566 JONES      MANAGER       7839 02-APR-81      2975                    20
     7698 BLAKE      MANAGER       7839 01-MAY-81      2850                    30
     7782 CLARK      MANAGER       7839 09-JUN-81      2450                    10
     7788 SCOTT      ANALYST       7566 09-NOV-81      3000                    20
     7902 FORD       ANALYST       7566 03-DEC-81      3000                    20
```

18. List the emps those are having five characters in their Names.

```
SQL> select *  from emp where length (ename) = 5;

    EMPNO ENAME      JOB            MGR HIREDATE         SAL       COMM     DEPTNO
---------- ---------- --------- ---------- --------- ---------- ---------- ----------
     7369 SMITH      CLERK         7902 17-DEC-80       800                    20
     7499 ALLEN      SALESMAN      7698 20-FEB-81      1600        300         30
     7566 JONES      MANAGER       7839 02-APR-81      2975                    20
     7698 BLAKE      MANAGER       7839 01-MAY-81      2850                    30
     7782 CLARK      MANAGER       7839 09-JUN-81      2450                    10
     7788 SCOTT      ANALYST       7566 09-NOV-81      3000                    20
     7876 ADAMS      CLERK         7788 23-SEP-81      1100                    20
     7900 JAMES      CLERK         7698 03-DEC-81       950                    30

8 rows selected.

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```

19. List the Enames those are starting with 'S' and with five characters.

```
SQL>  select ename from emp where ename like 'S%' and length (ename) = 5;

ENAME
----------
SMITH
SCOTT
```

20. List the emps those are having four chars and third character must be 'r'.

```
SQL> select * from emp where length(ename) = 4 and ename like '__R%';

    EMPNO ENAME      JOB            MGR HIREDATE         SAL       COMM     DEPTNO
---------- ---------- --------- ---------- --------- ---------- ---------- ----------
     7521 WARD       SALESMAN      7698 22-FEB-81      1250        500         30
     7902 FORD       ANALYST       7566 03-DEC-81      3000                    20
```

21. List the Five character names starting with 'S' and ending with 'H'.

```
SQL>  select ename from emp where ename like 'S___H' and length (ename) = 5;

ENAME
----------
SMITH
```

22. List the emps who joined in January.

```
SQL> select * from emp where to_char (hiredate,'mon') = 'jan';

     EMPNO ENAME      JOB            MGR HIREDATE       SAL       COMM     DEPTNO
---------- ---------- --------- ---------- --------- ---------- ---------- ----------
      7934 MILLER     CLERK         7782 23-JAN-82     1300                    10
```

23. List the emps who joined in the month of which second character is 'a'.

```
SQL> select * from emp where to_char(hiredate,'mon') like '_a_';

     EMPNO ENAME      JOB            MGR HIREDATE       SAL       COMM     DEPTNO
---------- ---------- --------- ---------- --------- ---------- ---------- ----------
      7698 BLAKE      MANAGER       7839 01-MAY-81     2850                    30
      7934 MILLER     CLERK         7782 23-JAN-82     1300                    10

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```

24. List the emps who joined in the month of which second character is 'a'.

```
SQL> select * from emp where to_char(hiredate,'mon') like '_a%';

     EMPNO ENAME      JOB            MGR HIREDATE       SAL       COMM     DEPTNO
---------- ---------- --------- ---------- --------- ---------- ---------- ----------
      7698 BLAKE      MANAGER       7839 01-MAY-81     2850                    30
      7934 MILLER     CLERK         7782 23-JAN-82     1300                    10
```

25. List the emps whose Sal is four digit number ending with Zero.

```
SQL> select * from emp where length (sal) = 4 and sal like '%0';

     EMPNO ENAME      JOB            MGR HIREDATE       SAL       COMM     DEPTNO
---------- ---------- --------- ---------- --------- ---------- ---------- ----------
      7499 ALLEN      SALESMAN      7698 20-FEB-81     1600        300        30
      7521 WARD       SALESMAN      7698 22-FEB-81     1250        500        30
      7654 MARTIN     SALESMAN      7698 28-SEP-81     1250       1400        30
      7698 BLAKE      MANAGER       7839 01-MAY-81     2850                    30
      7782 CLARK      MANAGER       7839 09-JUN-81     2450                    10
      7788 SCOTT      ANALYST       7566 09-NOV-81     3000                    20
      7839 KING       PRESIDENT          17-NOV-81     5000                    10
      7844 TURNER     SALESMAN      7698 08-SEP-81     1500          0        30
      7876 ADAMS      CLERK         7788 23-SEP-81     1100                    20
      7902 FORD       ANALYST       7566 03-DEC-81     3000                    20
      7934 MILLER     CLERK         7782 23-JAN-82     1300                    10

11 rows selected.
```

26. List the emps whose names having a character set 'll' together.

```
SQL> select * from emp where ename like '%LL%';

    EMPNO ENAME      JOB              MGR HIREDATE        SAL       COMM     DEPTNO
---------- ---------- --------- ---------- --------- ---------- ---------- ----------
     7499 ALLEN      SALESMAN        7698 20-FEB-81     1600        300         30
     7934 MILLER     CLERK           7782 23-JAN-82     1300                    10
```

27. List the emps those who joined in 80's.

```
SQL> select * from emp where to_char(hiredate,'yy') like '8_';

    EMPNO ENAME      JOB              MGR HIREDATE        SAL       COMM     DEPTNO
---------- ---------- --------- ---------- --------- ---------- ---------- ----------
     7369 SMITH      CLERK           7902 17-DEC-80      800                    20
     7499 ALLEN      SALESMAN        7698 20-FEB-81     1600        300         30
     7521 WARD       SALESMAN        7698 22-FEB-81     1250        500         30
     7566 JONES      MANAGER         7839 02-APR-81     2975                    20
     7654 MARTIN     SALESMAN        7698 28-SEP-81     1250       1400         30
     7698 BLAKE      MANAGER         7839 01-MAY-81     2850                    30
     7782 CLARK      MANAGER         7839 09-JUN-81     2450                    10
     7788 SCOTT      ANALYST         7566 09-NOV-81     3000                    20
     7839 KING       PRESIDENT            17-NOV-81     5000                    10
     7844 TURNER     SALESMAN        7698 08-SEP-81     1500          0         30
     7876 ADAMS      CLERK           7788 23-SEP-81     1100                    20
     7900 JAMES      CLERK           7698 03-DEC-81      950                    30
     7902 FORD       ANALYST         7566 03-DEC-81     3000                    20
     7934 MILLER     CLERK           7782 23-JAN-82     1300                    10

14 rows selected.
```

28. List the emps who does not belong to Deptno 20.

```
SQL> select * from emp where deptno != 20;

    EMPNO ENAME      JOB              MGR HIREDATE        SAL       COMM     DEPTNO
---------- ---------- --------- ---------- --------- ---------- ---------- ----------
     7499 ALLEN      SALESMAN        7698 20-FEB-81     1600        300         30
     7521 WARD       SALESMAN        7698 22-FEB-81     1250        500         30
     7654 MARTIN     SALESMAN        7698 28-SEP-81     1250       1400         30
     7698 BLAKE      MANAGER         7839 01-MAY-81     2850                    30
     7782 CLARK      MANAGER         7839 09-JUN-81     2450                    10
     7839 KING       PRESIDENT            17-NOV-81     5000                    10
     7844 TURNER     SALESMAN        7698 08-SEP-81     1500          0         30
     7900 JAMES      CLERK           7698 03-DEC-81      950                    30
     7934 MILLER     CLERK           7782 23-JAN-82     1300                    10

9 rows selected.
```

29. List all the emps except 'PRESIDENT' & 'MGR" in asc order of Salaries.

```
SQL> Select * from emp where job not in ('PRESIDENT','MANAGER') order by sal asc;

    EMPNO ENAME      JOB            MGR HIREDATE        SAL       COMM     DEPTNO
---------- ---------- --------- ---------- --------- ---------- ---------- ----------
      7369 SMITH      CLERK           7902 17-DEC-80        800                    20
      7900 JAMES      CLERK           7698 03-DEC-81        950                    30
      7876 ADAMS      CLERK           7788 23-SEP-81       1100                    20
      7521 WARD       SALESMAN        7698 22-FEB-81       1250        500         30
      7654 MARTIN     SALESMAN        7698 28-SEP-81       1250       1400         30
      7934 MILLER     CLERK           7782 23-JAN-82       1300                    10
      7844 TURNER     SALESMAN        7698 08-SEP-81       1500          0         30
      7499 ALLEN      SALESMAN        7698 20-FEB-81       1600        300         30
      7902 FORD       ANALYST         7566 03-DEC-81       3000                    20
      7788 SCOTT      ANALYST         7566 09-NOV-81       3000                    20

10 rows selected.
```

30. List all the emps who joined in before or after 1981.

```
SQL> select * from emp where to_char(hiredate,'YYYY') <> '1981' ;

    EMPNO ENAME      JOB            MGR HIREDATE        SAL       COMM     DEPTNO
---------- ---------- --------- ---------- --------- ---------- ---------- ----------
      7369 SMITH      CLERK           7902 17-DEC-80        800                    20
      7934 MILLER     CLERK           7782 23-JAN-82       1300                    10

SQL> ANIRBAN HAZRA
```

THANK YOU