DBMS LABORATORY 3

LAB RECORD

NAME   : ANIRBAN HAZRA

SECTION : CSE - 16

ROLL   : 2005643

DATE   : 15/02/2022

BUILT - IN FUNCTIONS

1. List the emps whose sal is 4 digit number ending with zero.

```
SQL> select * from emp where length(SAL)=4 AND mod(SAL,10)=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.
```

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

```
SQL> select * from emp where to_char(hiredate,'YY') between '80' and '89';

     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.
```

3. List the emps who does not belong to deptno 20

```
SQL> select * from emp where deptno not in(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.
```

4. 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.
```

5. List the emps whose empno not starting with digit 78

```
SQL> select * from emp where substr(empno,1,2) not in(78);

    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
      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

12 rows selected.
```

6. Display the details of 'Smith'

```
SQL> select * from emp where ename = 'SMITH' ;

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

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```

7. Find the highest Sal of the Emp table.

```
SQL> select max(sal) from emp  ;

    MAX(SAL)
----------
       5000
```

8. Find the total sal given to the 'MGR'

```
SQL>  select sum(sal) from emp where empno in(select mgr from emp);

   SUM(SAL)
----------
      19275
```

9. List the emps whose salary is more than 3000 after giving 20% increment

```
SQL> SELECT * FROM EMP WHERE (1.2*SAL) > 3000 ;

    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
     7788 SCOTT      ANALYST         7566 09-NOV-81      3000                    20
     7839 KING       PRESIDENT            17-NOV-81      5000                    10
     7902 FORD       ANALYST         7566 03-DEC-81      3000                    20
```

10. List those emps whose sal is odd value.

```
SQL> select * from emp where mod(sal,2) = 1;

    EMPNO ENAME      JOB              MGR HIREDATE        SAL       COMM     DEPTNO
--------- ---------- --------- ---------- -------- ---------- ---------- ----------
     7566 JONES      MANAGER         7839 02-APR-81      2975                    20
```

11. List the emps whose sal contain 3 digits

```
SQL>  select * from emp where length (sal) = 3;

    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
```

12. List the emps whose first 2 chars from hiredate = last 2 chars of salary.

```
SQL> select * from emp
  2   where substr(hiredate,1,2) = substr(sal,length(sal)-1,length(sal));

no rows selected
```

13. List the emps whose 10% of sal is equal to year of Joining

```
SQL> select * from emp where to_char(hiredate,'YY') in (select 0.1*sal from emp);

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

14. Display employee name and annual salary for all employees.

```
SQL> select ename , sal , sal*12 "Annual Salary" from emp;

ENAME             SAL Annual Salary
---------- ---------- -------------
SMITH             800         9600
ALLEN            1600        19200
WARD             1250        15000
JONES            2975        35700
MARTIN           1250        15000
BLAKE            2850        34200
CLARK            2450        29400
SCOTT            3000        36000
KING             5000        60000
TURNER           1500        18000
ADAMS            1100        13200
JAMES             950        11400
FORD             3000        36000
MILLER           1300        15600
ANIRBAN

15 rows selected.
```