LAB-5

Problem Statements:-

1) Create a table called EMP with the given structure.
2) Create a primary key constraint for the table (EMPNO)
3) Define the field DEPTNO as unique.
4) Add constraints to check, minimum salary should be 10000
5) No field should be null
6) Write queries to implement and practice constraints.

1) Create a table called EMP with the given structure.

    EMPNO   number(6)
    EMPNAME   varchar(20)
    JOB   varchar(11)
    DEPTNO   number(3)
    SAL   number(7,2)

SQL> create table emp(empno number(6),empname varchar(20),job varchar(11),deptno number(3),sal number(7,2));

Table created.

SQL> alter table emp modify empno primary key;

Table altered.

SQL> alter table emp modify deptno unique;

Table altered.

SQL> alter table emp modify sal number(7,2)check(sal>=10000);

Table altered.

SQL> alter table emp modify sal not null;

Table altered.

SQL> alter table emp modify empname not null;

Table altered.

SQL> alter table emp modify job not null;

Table altered.

SQL> alter table emp modify deptno not null;

Table altered.

```
SQL> desc emp
 Name                        Null?            Type
 --------------------------- ---------------- ------------------------
 EMPNO                       NOT NULL   NUMBER(6)
 EMPNAME                     NOT NULL   VARCHAR2(20)
 JOB                         NOT NULL   VARCHAR2(11)
 DEPTNO                      NOT NULL   NUMBER(3)
 SAL                         NOT NULL   NUMBER(7,2)



SQL> insert into emp values('','jon','worker','11','10000');
insert into emp values('','jon','worker','11','10000')
                      *
ERROR at line 1:
ORA-01400: cannot insert NULL into ("SCOTT"."EMP"."EMPNO")



SQL> insert into emp values('1','jon','worker','11','10000');
1 row created.

SQL> insert into emp values('3','rahul','engineer','33','11000');
1 row created.

SQL> insert into emp values('4','ankit','eng','44','11000');
1 row created.



SQL> select * from emp;

    EMPNO EMPNAME              JOB          DEPTNO       SAL
---------- -------------------- ---------- ---------- ----------
        1 jon                  worker           11     10000
        3 rahul                engineer         33     11000
        4 ankit                eng              44     11000
```

LAB-6

Problem Statements:

1. Perform arithmetic operation using Dual
        Find 12 to the power 2
        Find 12*12 from dual
        Find the square root of 81
        Round off 29.72156 up to 3 decimal places
        Truncate 29.72156 up to 2 decimal places
        Find remainder/modulus of 536 by 10

2. Display employee salaries, 2% as TA, 5% as DA, 10% as HRA, 4% as COMM and final salary
3. Display salaries between 11000 and 13000 in ascending order
4. Display employee names and salaries who is getting any one of the following salaries 11000, 13000, 5000
5. Display names of the employees begin with s

1)
  SQL> select power(12,2) from dual;
  POWER(12,2)

       144

SQL> select 12*12 from dual;
   12*12

     144

SQL> select sqrt(81) from dual;
 SQRT(81)

      9

SQL> select round(29.72156,3) from dual;
ROUND(29.72156,3)

     29.722

SQL> select trunc(29.72156,2) from dual;
TRUNC(29.72156,2)

     29.72

SQL> select 536/10 from dual;
  536/10

   53.6

SQL> select mod(536,10) from dual;
MOD(536,10)

    6

2)

SQL> select * from emp;

EMPNO	EMPNAME	JOB	DEPTNO	SAL
1	jon	worker	11	10000
3	rahul	engineer	33	11000
4	ankit	eng	44	11000
5	abhi	soft eng	55	12000
6	ravi	me eng	66	90000
77	ruchi	ec eng	77	19000
8	aman	cse eng	88	13000
9	sujit	it eng	99	13000
10	sumit	me eng	100	13000
2	pinki	ec eng	22	13000

10 rows selected.

SQL> select sal*2/100 as TA,sal*5/100 as DA,sal*10/100 as COM,sal+sal*21/100 as Total_sal from emp;

TA	DA	COM	TOTAL_SAL
200	500	1000	12100
220	550	1100	13310
220	550	1100	13310
240	600	1200	14520
1800	4500	9000	108900
380	950	1900	22990
260	650	1300	15730
260	650	1300	15730
260	650	1300	15730
260	650	1300	15730

10 rows selected.

3)
SQL> select sal,empname from emp where sal between 11000 and 13000 order by sal ASC;

SAL	EMPNAME
11000	ankit
11000	rahul
12000	abhi
13000	sumit
13000	sujit
13000	pinki
13000	aman

7 rows selected.

4)

SQL> select sal,empname from emp where sal like(11000);

```
       SAL EMPNAME
---------- --------------------
     11000 rahul
     11000 ankit
```

SQL> select sal,empname from emp where sal like(13000);

```
       SAL EMPNAME
---------- --------------------
     13000 aman
     13000 sujit
     13000 sumit
     13000 pinki
```

SQL> select sal,empname from emp where sal like(5000);

no rows selected

5)

SQL> select * from emp where empname like 's%';

```
     EMPNO EMPNAME              JOB         DEPTNO       SAL
---------- -------------------- ----------- ---------- ----------
         9 sujit                it eng             99      13000
        10 sumit                me eng            100      13000
```