Assignment – 5

1. **List all the employee names, dept name and the city, in department name order.**

   SQL Query:
   SELECT ename, dname, loc FROM emp, dept
   WHERE emp.deptno=dept.deptno
   ORDER BY dept.dname;

   Output:

```
SQL> SELECT ename, dname, loc FROM emp, dept
  2  WHERE emp.deptno=dept.deptno
  3  ORDER BY dept.dname;

ENAME      DNAME          LOC
---------- -------------- -------------
CLARK      ACCOUNTING     NEW YORK
MILLER     ACCOUNTING     NEW YORK
KING       ACCOUNTING     NEW YORK
FORD       RESEARCH       DALLAS
SCOTT      RESEARCH       DALLAS
JONES      RESEARCH       DALLAS
SMITH      RESEARCH       DALLAS
ADAMS      RESEARCH       DALLAS
WARD       SALES          CHICAGO
MARTIN     SALES          CHICAGO
TURNER     SALES          CHICAGO
JAMES      SALES          CHICAGO
ALLEN      SALES          CHICAGO
BLAKE      SALES          CHICAGO

14 rows selected.
```

2. **List all employees working in Dallas in descending order of salary.**

   SQL Query:
   SELECT ename,sal FROM emp
   WHERE deptno IN(SELECT deptno FROM dept WHERE loc='DALLAS')
   ORDER BY sal DESC;

   Output:

```
SQL> SELECT ename,sal FROM emp
  2  WHERE deptno IN(SELECT deptno FROM dept WHERE loc='DALLAS')
  3  ORDER BY sal DESC;

ENAME             SAL
---------- ----------
FORD             3000
SCOTT            3000
JONES            2975
ADAMS            1100
SMITH             800
```

3. **List employee name, department name, job and location of all employees who work in DALLAS.**

   SQL Query:
   SELECT ename, dname, job, loc FROM emp, dept
   WHERE dept.deptno IN(SELECT deptno FROM dept WHERE loc='DALLAS');

Output:

```
SQL> SELECT ename, dname, job, loc FROM emp, dept
  2  WHERE dept.deptno IN(SELECT deptno FROM dept WHERE loc='DALLAS');

ENAME      DNAME          JOB       LOC
---------- -------------- --------- -------------
KING       RESEARCH       PRESIDENT DALLAS
BLAKE      RESEARCH       MANAGER   DALLAS
CLARK      RESEARCH       MANAGER   DALLAS
JONES      RESEARCH       MANAGER   DALLAS
SCOTT      RESEARCH       ANALYST   DALLAS
FORD       RESEARCH       ANALYST   DALLAS
SMITH      RESEARCH       CLERK     DALLAS
ALLEN      RESEARCH       SALESMAN  DALLAS
WARD       RESEARCH       SALESMAN  DALLAS
MARTIN     RESEARCH       SALESMAN  DALLAS
TURNER     RESEARCH       SALESMAN  DALLAS
ADAMS      RESEARCH       CLERK     DALLAS
JAMES      RESEARCH       CLERK     DALLAS
MILLER     RESEARCH       CLERK     DALLAS

14 rows selected.
```

4. **List the employee name, salary, PF, HRA, DA and gross salary; order the result in ascending order of gross. PF is 10% of salary, HRA is 60% of salary and DA is 40% of salary.**

   SQL Query:
   SELECT ename, sal, sal*.1 PF, sal*.6 HRA, sal*.4 DA, ((sal*.1)+(sal*.6)+(sal*.4)+sal) GS
   FROM emp
   ORDER BY GS ASC;

   Output:

```
SQL> SELECT ename, sal, sal*.1 PF, sal*.6 HRA, sal*.4 DA, ((sal*.1)+(sal*.6)+(sal*.4)+sal) GS
  2  FROM emp
  3  ORDER BY GS ASC;

ENAME             SAL         PF        HRA         DA         GS
---------- ---------- ---------- ---------- ---------- ----------
SMITH             800         80        480        320       1680
JAMES             950         95        570        380       1995
ADAMS            1100        110        660        440       2310
MARTIN           1250        125        750        500       2625
WARD             1250        125        750        500       2625
MILLER           1300        130        780        520       2730
TURNER           1500        150        900        600       3150
ALLEN            1600        160        960        640       3360
CLARK            2450        245       1470        980       5145
BLAKE            2850        285       1710       1140       5985
JONES            2975      297.5       1785       1190     6247.5
FORD             3000        300       1800       1200       6300
SCOTT            3000        300       1800       1200       6300
KING             5000        500       3000       2000      10500

14 rows selected.
```

5. **Display names and salary of all the employees who report to KING.**

   SQL Query:
   SELECT ename, sal FROM emp
   WHERE mgr=(SELECT empno FROM emp WHERE ename='KING');

   Output:

```
SQL> SELECT ename, sal FROM emp
  2  WHERE mgr=(SELECT empno FROM emp WHERE ename='KING');

ENAME             SAL
---------- ----------
BLAKE            2850
CLARK            2450
JONES            2975
```

6. **List all employees who work in DALLAS and earn more than any employee working in Chicago.**

   SQL Query:
   SELECT ename, loc, sal FROM emp, dept
   WHERE emp.deptno=dept.deptno AND loc='DALLAS' AND
   sal>(SELECT MAX(sal) FROM emp, dept
   WHERE loc='CHICAGO' AND emp.deptno=dept.deptno);

   Output:

```
SQL> SELECT ename, loc, sal FROM emp, dept
  2  WHERE emp.deptno=dept.deptno AND loc='DALLAS' AND
  3  sal>(SELECT MAX(sal) FROM emp, dept
  4             WHERE loc='CHICAGO' AND emp.deptno=dept.deptno);

ENAME      LOC                 SAL
---------- ------------- ----------
JONES      DALLAS              2975
SCOTT      DALLAS              3000
FORD       DALLAS              3000
```

7. **List all employees who work in the same post as Smith.**

   SQL Query:
   SELECT ename, job FROM emp
   WHERE job=(SELECT job FROM emp WHERE ename='SMITH');

   Output:

```
SQL> SELECT ename, job FROM emp
  2  WHERE job=(SELECT job FROM emp WHERE ename='SMITH');

ENAME      JOB
---------- ---------
SMITH      CLERK
ADAMS      CLERK
JAMES      CLERK
MILLER     CLERK
```

8. **Find the job with the highest average salary.**

   SQL Query:
   SELECT job FROM emp
   WHERE sal=(SELECT MAX(AVG(sal)) FROM emp GROUP BY job);

   Output:

```
SQL> SELECT job FROM emp
  2  WHERE sal=(SELECT MAX(AVG(sal)) FROM emp GROUP BY job);

JOB
---------
PRESIDENT
```

9. **List the top 10 earners in the company.**

   SQL Query:
   SELECT ename, sal FROM (SELECT ename, sal FROM emp ORDER BY sal DESC)
   WHERE ROWNUM<=10;

Output:

```
SQL> SELECT ename, sal FROM (SELECT ename, sal FROM emp ORDER BY sal DESC)
  2  WHERE ROWNUM<=10;

ENAME             SAL
---------- ----------
KING             5000
SCOTT            3000
FORD             3000
JONES            2975
BLAKE            2850
CLARK            2450
ALLEN            1600
TURNER           1500
MILLER           1300
WARD             1250

10 rows selected.
```

10. Display the names of all employees' replacing 'A' with 'a'.

SQL Query:
SELECT REPLACE(ename,'A','a') from emp;

Output:

```
SQL> SELECT REPLACE(ename,'A','a') from emp;

REPLACE(EN
----------
KING
BLaKE
CLaRK
JONES
SCOTT
FORD
SMITH
aLLEN
WaRD
MaRTIN
TURNER
aDaMS
JaMES
MILLER

14 rows selected.
```

11. Show the salary of all the employees rounding it to the nearest Rs.1000/-.

SQL Query:
SELECT ename, sal, ROUND(sal, -3) from emp;

Output:

```
SQL> SELECT ename, sal, ROUND(sal, -3) from emp;

ENAME             SAL ROUND(SAL,-3)
---------- ---------- -------------
KING             5000          5000
BLAKE            2850          3000
CLARK            2450          2000
JONES            2975          3000
SCOTT            3000          3000
FORD             3000          3000
SMITH             800          1000
ALLEN            1600          2000
WARD             1250          1000
MARTIN           1250          1000
TURNER           1500          2000
ADAMS            1100          1000
JAMES             950          1000
MILLER           1300          1000

14 rows selected.
```

12. Show the first three and last three characters of the names of all the employees.

SQL Query:

SELECT SUBSTR(ename, 1, 3), SUBSTR(ename, -3) FROM emp;

Output:

```
SQL> SELECT SUBSTR(ename, 1, 3),  SUBSTR(ename, -3) FROM emp;

SUBSTR(ENAME SUBSTR(ENAME
------------ ------------
KIN          ING
BLA          AKE
CLA          ARK
JON          NES
SCO          OTT
FOR          ORD
SMI          ITH
ALL          LEN
WAR          ARD
MAR          TIN
TUR          NER
ADA          AMS
JAM          MES
MIL          LER

14 rows selected.
```