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PRACTICAL 3

A) Using emp table, perform the following queries:

1) Display the details of all employees.

```
SQL> set linesize 10000
SQL> set pagesize 10000
SQL> select * from akshat_EMP;

EMP_NO ENAME      JOB          MGR HIREDATE    SAL     COMM  DEPT_NO
----- -----
 7839 KING        PRESIDENT   7839 17-NOV-81  5000
 7698 BLAKE       MANAGER    7839 01-MAY-81  2850
 7782 CLARK       MANAGER    7839 09-JUN-81  2450
 7566 JONES       MANAGER    7839 02-APR-81  2975
 7788 SCOTT       ANALYST    7566 19-APR-87  3000
 7902 FORD        ANALYST    7566 03-DEC-81  3000
 7369 SMITH       CLERK      7902 17-DEC-80  800
 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
 7844 TURNER     SALESMAN   7698 08-SEP-81  1500      0    30
 7876 ADAMS       CLERK      7788 23-MAY-87  1100
 7900 JAMES       CLERK      7698 03-DEC-81  950
 7934 MILLER     CLERK      7782 23-JAN-82  1300

14 rows selected.
```

2) Display the name and job for all employees.

```
SQL> select Ename,Job from akshat_EMP;

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

14 rows selected.
```

3) Display name and salary for all employees.

```
SQL> select Ename,SAL from akshat_EMP;  
  
ENAME          SAL  
---  
KING           5000  
BLAKE          2850  
CLARK          2450  
JONES          2975  
SCOTT          3000  
FORD            3000  
SMITH            800  
ALLEN           1600  
WARD             1250  
MARTIN          1250  
TURNER           1500  
ADAMS            1100  
JAMES             950  
MILLER           1300  
  
14 rows selected.
```

4) Display the details of all employees who are earning salary greater than 2000.

```
SQL> select * from akshat_EMP  
2 where SAL>2000;  
  
EMP_NO ENAME      JOB          MGR HIREDATE      SAL       COMM     DEPT_NO  
---  
7839  KING        PRESIDENT    7839 17-NOV-81   5000      10  
7698  BLAKE       MANAGER     7839 01-MAY-81   2850      30  
7782  CLARK       MANAGER     7839 09-JUN-81   2450      10  
7566  JONES       MANAGER     7839 02-APR-81   2975      20  
7788  SCOTT       ANALYST    7566 19-APR-87   3000      20  
7902  FORD         ANALYST    7566 03-DEC-81   3000      20  
  
6 rows selected.
```

5) Display the details of all employees who are working as Manager.

```
SQL> select * from akshat_EMP  
2 where Job='MANAGER';  
  
EMP_NO ENAME      JOB          MGR HIREDATE      SAL       COMM     DEPT_NO  
---  
7698  BLAKE       MANAGER     7839 01-MAY-81   2850      30  
7782  CLARK       MANAGER     7839 09-JUN-81   2450      10  
7566  JONES       MANAGER     7839 02-APR-81   2975      20
```

6) Display the names of all employees who are working in department number 10.

```
SQL> select * from akshat_EMP
  2  where Dept_no=10;

EMP_NO ENAME      JOB          MGR HIREDATE      SAL      COMM      DEPT_NO
----- -----
 7839 KING        PRESIDENT    7839 17-NOV-81   5000
 7782 CLARK       MANAGER     7782 09-JUN-81   2450
 7934 MILLER     CLERK       7782 23-JAN-82   1300
```

7) Display the names of all employees working as clerk and drawing a salary more than 3000.

```
SQL> select * from akshat_EMP
  2  where Job='CLERK' and SAL>3000;
no rows selected
```

8) Display employee number and names for employees who earn commission.

```
SQL> select Emp_no,Ename,comm from akshat_EMP
  2  where comm>0;

EMP_NO ENAME      COMM
----- -----
 7499 ALLEN      300
 7521 WARD       500
 7654 MARTIN    1400
```

9) Display names of employees who do not earn any commission.

```
SQL> select Emp_no,Ename,comm from akshat_EMP
  2  where comm is null;

EMP_NO ENAME      COMM
----- -----
 7839 KING
 7698 BLAKE
 7782 CLARK
 7566 JONES
 7788 SCOTT
 7902 FORD
 7369 SMITH
 7876 ADAMS
 7900 JAMES
 7934 MILLER

10 rows selected.
```

10) Display the names of employees who are working as clerk, salesman or analyst and drawing a salary more than 2000.

```
SQL> select Ename from akshat_EMP  
  2 where Job in('CLERK','SALESMAN','ANALYST')and SAL>2000;  
  
ENAME  
-----  
SCOTT  
FORD
```

11) Display the names of employees who are working as clerk, salesman or analyst.

```
SQL> select Ename from akshat_EMP  
  2 where Job in('CLERK','SALESMAN','ANALYST');  
  
ENAME  
-----  
SCOTT  
FORD  
SMITH  
ALLEN  
WARD  
MARTIN  
TURNER  
ADAMS  
JAMES  
MILLER  
  
10 rows selected.
```

12) Display the names of employees working in department number 10 or 20 or 30.

```
SQL> select Ename from akshat_EMP  
2 where Dept_no in(10,20,30);  
  
ENAME  
-----  
KING  
BLAKE  
CLARK  
JONES  
SCOTT  
FORD  
SMITH  
ALLEN  
WARD  
MARTIN  
TURNER  
ADAMS  
JAMES  
MILLER  
  
14 rows selected.
```

13) Display the details of employees whose salary lies in the range of 1000 and 2000.

```
SQL> select * from akshat_EMP  
2 where SAL between 1000 and 2000;  
  
EMP_NO ENAME JOB MGR HIREDATE SAL COMM DEPT_NO  
-----  
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  
7844 TURNER SALESMAN 7698 08-SEP-81 1500 0 30  
7876 ADAMS CLERK 7788 23-MAY-87 1100 0 20  
7934 MILLER CLERK 7782 23-JAN-82 1300 0 10  
  
6 rows selected.
```

14) List the employees in the ascending order of their salaries.

```
SQL> select * from akshat_EMP
  2  order by SAL ASC;

  EMP_NO ENAME      JOB          MGR HIREDATE    SAL     COMM   DEPT_NO
----- -----
  7369  SMITH       CLERK        7902 17-DEC-80  800
  7900  JAMES       CLERK        7698 03-DEC-81  950
  7876  ADAMS       CLERK        7788 23-MAY-87 1100
  7654  MARTIN     SALESMAN    7698 28-SEP-81 1250    1400   30
  7521  WARD        SALESMAN    7698 22-FEB-81 1250    500    30
  7934  MILLER     CLERK        7782 23-JAN-82 1300
  7844  TURNER     SALESMAN    7698 08-SEP-81 1500      0    30
  7499  ALLEN      SALESMAN    7698 20-FEB-81 1600    300    30
  7782  CLARK      MANAGER     7839 09-JUN-81 2450
  7698  BLAKE      MANAGER     7839 01-MAY-81 2850
  7566  JONES      MANAGER     7839 02-APR-81 2975
  7902  FORD        ANALYST    7566 03-DEC-81 3000
  7788  SCOTT      ANALYST    7566 19-APR-87 3000
  7839  KING        PRESIDENT   17-NOV-81 5000
14 rows selected.
```

15) List the Empno, Ename, Sal of all emps working for Mgr 7369.

```
SQL> select Emp_no,Ename,SAL from akshat_EMP
  2  where MGR=7369;

no rows selected
```

16) List the employees who are either ‘CLERK’ or ‘ANALYST’ in the Desc order.

```
SQL> select * from akshat_EMP
  2  where Job='CLERK' or Job='ANALYST'
  3  order by Job desc;

  EMP_NO ENAME      JOB          MGR HIREDATE    SAL     COMM   DEPT_NO
----- -----
  7369  SMITH       CLERK        7902 17-DEC-80  800
  7900  JAMES       CLERK        7698 03-DEC-81  950
  7934  MILLER     CLERK        7782 23-JAN-82 1300
  7876  ADAMS       CLERK        7788 23-MAY-87 1100
  7902  FORD        ANALYST    7566 03-DEC-81 3000
  7788  SCOTT      ANALYST    7566 19-APR-87 3000
6 rows selected.
```

17) List the employees who are working in Deptno 10 or 20.

```
SQL> select * from akshat_EMP
  2 where Dept_no in(10,20);

EMP_NO ENAME      JOB          MGR HIREDATE      SAL    COMM    DEPT_NO
----- -----
 7839 KING        PRESIDENT   7839 17-NOV-81  5000
 7782 CLARK       MANAGER    7839 09-JUN-81  2450
 7566 JONES       MANAGER    7566 02-APR-81  2975
 7788 SCOTT       ANALYST    7566 19-APR-87  3000
 7902 FORD        ANALYST    7566 03-DEC-81  3000
 7369 SMITH       CLERK      7902 17-DEC-80   800
 7876 ADAMS       CLERK      7788 23-MAY-87  1100
 7934 MILLER     CLERK      7782 23-JAN-82  1300

8 rows selected.
```

18) List the employees whose name have a character set 'll' together.

```
SQL> select * from akshat_EMP
  2 where Ename like '%LL%';

EMP_NO ENAME      JOB          MGR HIREDATE      SAL    COMM    DEPT_NO
----- -----
 7499 ALLEN      SALESMAN   7698 20-FEB-81  1600
 7934 MILLER     CLERK      7782 23-JAN-82  1300
```

19) List the employees in ascending order of their names.

```
SQL> select * from akshat_EMP
  2 order by Ename ASC;

EMP_NO ENAME      JOB          MGR HIREDATE      SAL    COMM    DEPT_NO
----- -----
 7876 ADAMS       CLERK      7788 23-MAY-87  1100
 7499 ALLEN      SALESMAN   7698 20-FEB-81  1600
 7698 BLAKE       MANAGER    7839 01-MAY-81  2850
 7782 CLARK       MANAGER    7839 09-JUN-81  2450
 7902 FORD        ANALYST    7566 03-DEC-81  3000
 7900 JAMES       CLERK      7698 03-DEC-81  950
 7566 JONES       MANAGER    7839 02-APR-81  2975
 7839 KING        PRESIDENT   7698 17-NOV-81  5000
 7654 MARTIN     SALESMAN   7698 28-SEP-81  1250
 7934 MILLER     CLERK      7782 23-JAN-82  1300
 7788 SCOTT       ANALYST    7566 19-APR-87  3000
 7369 SMITH       CLERK      7902 17-DEC-80   800
 7844 TURNER     SALESMAN   7698 08-SEP-81  1500
 7521 WARD        SALESMAN   7698 22-FEB-81  1250

14 rows selected.
```

20) List the employees in descending order of their names.

```
SQL> select * from akshat_EMP
  2  order by Ename DESC;

EMP_NO ENAME      JOB          MGR HIREDATE      SAL    COMM     DEPT_NO
----- -----
 7521 WARD        SALESMAN    7698 22-FEB-81   1250    500      30
 7844 TURNER      SALESMAN    7698 08-SEP-81  1500     0       30
 7369 SMITH       CLERK       7902 17-DEC-80   800     20
 7788 SCOTT       ANALYST    7566 19-APR-87  3000     20
 7934 MILLER      CLERK       7782 23-JAN-82  1300     10
 7654 MARTIN      SALESMAN    7698 28-SEP-81  1250  1400      30
 7839 KING        PRESIDENT   7839 17-NOV-81  5000     10
 7566 JONES       MANAGER    7839 02-APR-81  2975     20
 7900 JAMES        CLERK       7698 03-DEC-81  950     30
 7902 FORD        ANALYST    7566 03-DEC-81  3000     20
 7782 CLARK       MANAGER    7839 09-JUN-81  2450     10
 7698 BLAKE       MANAGER    7839 01-MAY-81  2850     30
 7499 ALLEN       SALESMAN    7698 20-FEB-81  1600    300      30
 7876 ADAMS        CLERK       7788 23-MAY-87  1100     20

14 rows selected.
```

21) List the employees who do not belong to Deptno 20.

```
SQL> select * from akshat_EMP
  2  where Dept_no not in 20;

EMP_NO ENAME      JOB          MGR HIREDATE      SAL    COMM     DEPT_NO
----- -----
 7839 KING        PRESIDENT   17-NOV-81  5000     10
 7698 BLAKE       MANAGER    7839 01-MAY-81  2850     30
 7782 CLARK       MANAGER    7839 09-JUN-81  2450     10
 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
 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.
```

22) List all the employees except PRESIDENT and MANAGER.

```
SQL> select * from akshat_EMP
  2  where Job not in( 'PRESIDENT','MANAGER');

EMP_NO ENAME      JOB          MGR HIREDATE      SAL    COMM     DEPT_NO
----- -----
 7788 SCOTT       ANALYST    7566 19-APR-87  3000     20
 7902 FORD        ANALYST    7566 03-DEC-81  3000     20
 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
 7654 MARTIN      SALESMAN   7698 28-SEP-81  1250  1400      30
 7844 TURNER      SALESMAN   7698 08-SEP-81  1500     0       30
 7876 ADAMS        CLERK       7788 23-MAY-87  1100     20
 7900 JAMES        CLERK       7698 03-DEC-81  950     30
 7934 MILLER      CLERK       7782 23-JAN-82  1300     10

10 rows selected.
```

23) List the employees whose name starts with A.

```
SQL> select * from akshat_EMP
  2 where Ename like 'A%';

EMP_NO ENAME      JOB          MGR HIREDATE      SAL      COMM    DEPT_NO
----- -----
 7499 ALLEN       SALESMAN     7698 20-FEB-81   1600      300      30
 7876 ADAMS       CLERK        7788 23-MAY-87   1100
```

24) List all the Clerks of Deptno 20.

```
SQL> select * from akshat_EMP
  2 where Job='CLERK' and Dept_no=20;

EMP_NO ENAME      JOB          MGR HIREDATE      SAL      COMM    DEPT_NO
----- -----
 7369 SMITH       CLERK        7902 17-DEC-80   800      20
 7876 ADAMS       CLERK        7788 23-MAY-87   1100      20
```

25) List the employees whose names ends with S.

```
SQL> select * from akshat_EMP
  2 where Ename like '%S';

EMP_NO ENAME      JOB          MGR HIREDATE      SAL      COMM    DEPT_NO
----- -----
 7566 JONES       MANAGER      7839 02-APR-81   2975      20
 7876 ADAMS       CLERK        7788 23-MAY-87   1100      20
 7900 JAMES       CLERK        7698 03-DEC-81   950      30
```

26) List the employees who has name of exactly 4 characters.

```
SQL> select * from akshat_EMP
  2 where Ename like '___';

EMP_NO ENAME      JOB          MGR HIREDATE      SAL      COMM    DEPT_NO
----- -----
 7839 KING        PRESIDENT    17-NOV-81   5000      10
 7902 FORD        ANALYST     7566 03-DEC-81   3000      20
 7521 WARD        SALESMAN    7698 22-FEB-81   1250      30
```

27) List the names of the employees who are working as MANAGER in department 10.

```
SQL> select * from akshat_EMP
  2 where Job='MANAGER' and Dept_no=10;

EMP_NO ENAME      JOB          MGR HIREDATE      SAL      COMM    DEPT_NO
----- -----
 7782 CLARK       MANAGER     7839 09-JUN-81   2450      10
```

28) List the total salary of employees working as ANALYST.

```
SQL> select sum(SAL)
  2  from akshat_EMP
  3  where Job='ANALYST';

SUM(SAL)
-----
      6000
```

29) List the minimum, maximum and average salary of the employees.

```
SQL> select MIN(SAL),MAX(SAL),AVG(SAL)  from akshat_EMP;

  MIN(SAL)    MAX(SAL)    AVG(SAL)
-----  -----  -----
      800        5000  2073.21429
```

30) List the total number of employees working in department 10.

```
SQL> select Dept_no, count(*)
  2  from akshat_EMP
  3  group by Dept_no;

 DEPT_NO    COUNT(*)
-----  -----
      30          6
      20          5
      10          3
```

B) Answer the following queries:

1) Display the total salary of employees department wise.

```
SQL> select Dept_no, sum(SAL) from akshat_EMP  
2 group by Dept_no;  
  
DEPT_NO      SUM(SAL)  
-----  
      30        9400  
      20       10875  
      10        8750
```

2) Display the total salary of employees job wise in ascending order of job.

```
SQL> select Job,sum(SAL)  
2  from akshat_EMP  
3  group by Job  
4  order by Job ASC;  
  
JOB          SUM(SAL)  
-----  
ANALYST      6000  
CLERK        4150  
MANAGER      8275  
PRESIDENT    5000  
SALESMAN     5600
```

3) Display the total number of employees with a specific job.

```
SQL> select Job,count(*)  
2  from akshat_EMP  
3  group by Job;  
  
JOB          COUNT(*)  
-----  
CLERK        4  
SALESMAN     4  
PRESIDENT    1  
MANAGER      3  
ANALYST      2
```

4) Display the total number of employees working in each department.

```
SQL> select Dept_no,count(*)  
2  from akshat_EMP  
3  group by Dept_no;  
  
DEPT_NO      COUNT(*)  
-----  
      30        6  
      20        5  
      10        3
```

5) Display the total salary of employees specific to job and department in ascending order of job.

```
SQL> select Job,Dept_no,sum(SAL)
  2  from akshat_EMP
  3  group by Job,Dept_no
  4  order by Job;

JOB          DEPT_NO    SUM(SAL)
-----      -----
ANALYST        20       6000
CLERK          10       1300
CLERK          20       1900
CLERK          30        950
MANAGER         10      2450
MANAGER         20      2975
MANAGER         30      2850
PRESIDENT       10      5000
SALESMAN        30      5600

9 rows selected.
```

6) Display the total salary of the employees specific to the job when employee count is greater than 1.

```
SQL> select sum(SAL),count(Job)  from akshat_EMP
  2  group by Job
  3  having count(Job)>1;

SUM(SAL) COUNT(JOB)
----- -----
 4150          4
 5600          4
 8275          3
 6000          2
```

7) Display unique jobs of employees.

```
SQL> select distinct Job
  2  from akshat_EMP;

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