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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		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
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

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		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		17-NOV-81	5000		10
7782	CLARK	MANAGER	7839	09-JUN-81	2450		10
7934	MILLER	CLERK	7782	23-JAN-82	1300		10

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		20
7900	JAMES	CLERK	7698	03-DEC-81	950		30
7876	ADAMS	CLERK	7788	23-MAY-87	1100		20
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		10
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		10
7698	BLAKE	MANAGER	7839	01-MAY-81	2850		30
7566	JONES	MANAGER	7839	02-APR-81	2975		20
7902	FORD	ANALYST	7566	03-DEC-81	3000		20
7788	SCOTT	ANALYST	7566	19-APR-87	3000		20
7839	KING	PRESIDENT		17-NOV-81	5000		10

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		20
7900	JAMES	CLERK	7698	03-DEC-81	950		30
7934	MILLER	CLERK	7782	23-JAN-82	1300		10
7876	ADAMS	CLERK	7788	23-MAY-87	1100		20
7902	FORD	ANALYST	7566	03-DEC-81	3000		20
7788	SCOTT	ANALYST	7566	19-APR-87	3000		20

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		17-NOV-81	5000		10
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
7369	SMITH	CLERK	7902	17-DEC-80	800		20
7876	ADAMS	CLERK	7788	23-MAY-87	1100		20
7934	MILLER	CLERK	7782	23-JAN-82	1300		10

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	300	30
7934	MILLER	CLERK	7782	23-JAN-82	1300		10

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

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		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		20

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	500	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