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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 tahirrr_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 tahirr_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 tahirr_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 tahirr_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 tahirr_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 tahirr_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 tahirr_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 tahirr_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 tahirr_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 tahirr_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 tahirr_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 tahirr_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 tahirr_EMP  
2 where SAL between 1000 and 2000;
```

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
7788	SCOTT	ANALYST	7566	19-APR-87	3000		20
7902	FORD	ANALYST	7566	03-DEC-81	3000		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
7934	MILLER	CLERK	7782	23-JAN-82	1300		10

11 rows selected.

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

```
SQL> select * from tahirr_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 tahirr_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 tahirr_EMP where Job='CLERK' or Job='ANALYST'  
2 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 tahirr_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 tahirr_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 tahirr_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 tahirr_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 tahirr_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 tahirr_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 tahirr_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 tahirr_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 tahirr_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 tahirr_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 tahirr_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

```
SQL>
```

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

```
SQL> select sum(SAL)  
2 from tahirr_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 tahirr_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 tahirr_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 tahirr_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 tahirr_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 tahirr_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 tahirr_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 tahirr_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 tahirr_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 tahirr_EMP;
```

JOB
CLERK
SALESMAN
PRESIDENT
MANAGER
ANALYST