

Practical 3

A) Using emp table, perform the following queries:

1) Display the details of all employees.

```
Run SQL Command Line

SQL> select * from emp;

  EMPNO  ENAME      JOB              MGR  HIREDATE          SAL        COMM     DEPTNO
-----
  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.

SQL>
```

2) Display the name and job for all employees.

```
SQL> SELECT ENAME, JOB FROM 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 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 emp
2 WHERE SAL>2000;

  EMPNO ENAME      JOB              MGR HIREDATE          SAL        COMM     DEPTNO
-----
  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.

SQL>
```

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

```
SQL> SELECT * FROM emp
2 WHERE JOB='MANAGER';

  EMPNO ENAME      JOB              MGR HIREDATE          SAL        COMM     DEPTNO
-----
  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

SQL>
```

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

```
SQL> SELECT ENAME
2 FROM emp
3 WHERE DEPTNO=10;

ENAME
-----
KING
CLARK
MILLER

SQL>
```

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

```
SQL> SELECT ENAME
2 FROM emp
3 WHERE JOB='CLERK' and SAL>3000;

no rows selected
```

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

```
SQL> SELECT EMPNO,ENAME
2 FROM emp
3 WHERE COMM IS NOT NULL;

  EMPNO ENAME
-----
  7499 ALLEN
  7521 WARD
  7654 MARTIN
  7844 TURNER

SQL>
```

Name: BHAVESH KUMHAR
Roll no: 126 Class: Fyit

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

```
SQL> SELECT ENAME
  2   FROM emp
  3   WHERE COMM IS NULL;

ENAME
-----
KING
BLAKE
CLARK
JONES
SCOTT
FORD
SMITH
ADAMS
JAMES
MILLER

10 rows selected.

SQL>
```

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

```
SQL> SELECT ENAME
  2   FROM emp
  3   WHERE (JOB='CLERK' OR JOB='SALESMAN' OR JOB='ANALYST') and SAL>2000;

ENAME
-----
SCOTT
FORD

SQL>
```

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

```
SQL> SELECT ENAME
  2   FROM emp
  3   WHERE (JOB='CLERK' OR JOB='SALESMAN' OR JOB='ANALYST');

ENAME
-----
SCOTT
FORD
SMITH
ALLEN
WARD
MARTIN
TURNER
ADAMS
JAMES
MILLER

10 rows selected.

SQL>
```

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

```
SQL> SELECT ENAME
2 FROM emp
3 WHERE (DEPTNO=10 OR DEPTNO=20 OR DEPTNO=30);

ENAME
-----
KING
BLAKE
CLARK
JONES
SCOTT
FORD
SMITH
ALLEN
WARD
MARTIN
TURNER
ADAMS
JAMES
MILLER

14 rows selected.

SQL>
```

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

```
SQL> SELECT * FROM emp
2 WHERE SAL between 1000 and 2000;

  EMPNO ENAME      JOB              MGR HIREDATE          SAL       COMM     DEPTNO
-----
  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.

SQL>
```

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

```
SQL> SELECT ENAME FROM emp
2 order by SAL ASC;

ENAME
-----
SMITH
JAMES
ADAMS
MARTIN
WARD
MILLER
TURNER
ALLEN
CLARK
BLAKE
JONES
FORD
SCOTT
KING

14 rows selected.

SQL>
```

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

```
SQL> SELECT EMPNO,ENAME,SAL
  2   FROM emp
  3   WHERE MGR=7369;

no rows selected

SQL>
```

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

```
SQL> SELECT ENAME
  2   FROM emp
  3   WHERE JOB='CLERK' OR JOB='ANALYST'
  4   ORDER BY ENAME DESC;

ENAME
-----
SMITH
SCOTT
MILLER
JAMES
FORD
ADAMS

6 rows selected.
```

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

```
SQL> SELECT ENAME
  2   FROM emp
  3   WHERE (DEPTNO=10 OR DEPTNO=20);

ENAME
-----
KING
CLARK
JONES
SCOTT
FORD
SMITH
ADAMS
MILLER

8 rows selected.

SQL>
```

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

```
SQL> SELECT * FROM emp
  2   WHERE ENAME LIKE '%LL%';

  EMPNO  ENAME      JOB              MGR HIREDATE          SAL       COMM     DEPTNO
-----
    7499  ALLEN      SALESMAN         7698 20-FEB-81          1600         300         30
    7934  MILLER     CLERK             7782 23-JAN-82          1300              10

SQL>
```

Name: BHAVESH KUMHAR
Roll no: 126 Class: Fyit

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

```
SQL> SELECT ENAME FROM emp
2  order by ENAME ASC;

ENAME
-----
ADAMS
ALLEN
BLAKE
CLARK
FORD
JAMES
JONES
KING
MARTIN
MILLER
SCOTT
SMITH
TURNER
WARD

14 rows selected.

SQL> █
```

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

```
SQL> SELECT ENAME FROM emp
2  order by ENAME DESC;

ENAME
-----
WARD
TURNER
SMITH
SCOTT
MILLER
MARTIN
KING
JONES
JAMES
FORD
CLARK
BLAKE
ALLEN
ADAMS

14 rows selected.

SQL> █
```

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

```
SQL> SELECT ENAME
2  FROM emp
3  WHERE DEPTNO NOT IN(20);

ENAME
-----
KING
BLAKE
CLARK
ALLEN
WARD
MARTIN
TURNER
JAMES
MILLER

9 rows selected.

SQL> █
```

22) List all the employees except PRESIDENT and MANAGER.

```
SQL> SELECT ENAME
  2   FROM emp
  3  WHERE JOB NOT IN('PRESIDENT','MANAGER');

ENAME
-----
SCOTT
FORD
SMITH
ALLEN
WARD
MARTIN
TURNER
ADAMS
JAMES
MILLER

10 rows selected.
```

23) List the employees whose name starts with A.

```
SQL> SELECT * FROM emp
  2   WHERE ENAME LIKE 'A%';

EMPNO ENAME      JOB          MGR HIREDATE          SAL        COMM        DEPTNO
-----
7499 ALLEN      SALESMAN     7698 20-FEB-81       1600         300          30
7876 ADAMS      CLERK        7788 23-MAY-87       1100          00          20

SQL>
```

24) List all the Clerks of Deptno 20.

```
SQL> SELECT * FROM emp
  2   WHERE JOB='CLERK' AND DEPTNO=20;

EMPNO ENAME      JOB          MGR HIREDATE          SAL        COMM        DEPTNO
-----
7369 SMITH      CLERK        7902 17-DEC-80        800          00          20
7876 ADAMS      CLERK        7788 23-MAY-87       1100          00          20

SQL>
```

25) List the employees whose names ends with S.

```
SQL> SELECT * FROM emp
  2   WHERE ENAME LIKE '%S';

EMPNO ENAME      JOB          MGR HIREDATE          SAL        COMM        DEPTNO
-----
7566 JONES      MANAGER     7839 02-APR-81       2975          00          20
7876 ADAMS      CLERK        7788 23-MAY-87       1100          00          20
7900 JAMES      CLERK        7698 03-DEC-81        950          00          30

SQL>
```

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

```
SQL> SELECT * FROM emp
2  WHERE ENAME LIKE '____';
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
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

```
SQL>
```

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

```
SQL> SELECT ENAME
2  FROM emp
3  WHERE JOB='MANAGER' AND DEPTNO=10;
```

ENAME
CLARK

```
SQL>
```

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

```
SQL> SELECT SUM(SAL) FROM emp
2  WHERE JOB='ANALYST';
```

SUM(SAL)
6000

```
SQL>
```

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

```
SQL> SELECT SUM(SAL),MAX(SAL) FROM emp;
```

SUM(SAL)	MAX(SAL)
29025	5000

```
SQL> SELECT SUM(SAL),MIN(SAL) FROM emp;
```

SUM(SAL)	MIN(SAL)
29025	800

```
SQL> SELECT SUM(SAL),AVG(SAL) FROM emp;
```

SUM(SAL)	AVG(SAL)
29025	2073.21429

```
SQL>
```


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

```
SQL> SELECT COUNT(DEPTNO)
  2   FROM emp
  3   WHERE DEPTNO=10;

COUNT(DEPTNO)
-----
              3

SQL>
```

B) Answer the following queries:

1) Display the total salary of employees department wise.

```
SQL> SELECT DEPTNO,SUM(SAL)
  2   FROM emp
  3   GROUP BY DEPTNO;

DEPTNO    SUM(SAL)
-----
      30      9400
      20     10875
      10      8750

SQL>
```

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

```
SQL> SELECT JOB,SUM(SAL)
  2   FROM emp
  3   GROUP BY JOB
  4   ORDER BY JOB ASC;

JOB          SUM(SAL)
-----
ANALYST       6000
CLERK         4150
MANAGER       8275
PRESIDENT     5000
SALESMAN      5600

SQL>
```

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

```
SQL> SELECT JOB,COUNT(ENAME)
  2   FROM emp
  3   GROUP BY JOB;

JOB          COUNT(ENAME)
-----
CLERK                4
SALESMAN             4
PRESIDENT            1
MANAGER              3
ANALYST              2

SQL>
```

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

```
SQL> SELECT DEPTNO, COUNT(ENAME)
2 FROM emp
3 GROUP BY DEPTNO;

DEPTNO COUNT(ENAME)
-----
30      6
20      5
10      3

SQL>
```

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

```
SQL> SELECT DEPTNO, JOB, SUM(SAL)
2 FROM emp
3 GROUP BY JOB, DEPTNO
4 ORDER BY JOB ASC;

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

9 rows selected.

SQL> █
```

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

```
SQL> SELECT JOB, SUM(SAL), COUNT(*)
2 FROM emp
3 GROUP BY JOB
4 HAVING COUNT(JOB)>1;

JOB          SUM(SAL) COUNT(*)
-----
CLERK         4150      4
SALESMAN      5600      4
MANAGER       8275      3
ANALYST       6000      2

SQL> █
```

- 7) Display unique jobs of employees.

```
SQL> SELECT UNIQUE JOB FROM emp;

JOB
-----
CLERK
SALESMAN
PRESIDENT
MANAGER
ANALYST

SQL> █
```