CSE2007 : Database Management Systems

Name : Gudi Varaprasad

Reg. No. : 19BCE7048

School of Computer Science and Engineering

Lab Slot : L45 + L46

Date : 25 – 03 – 2021

Submitted to : Ms. Dhanavanthini madam

Practice SQL Queries

1. Display the details of all employees

> Select * from emp;

```
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


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


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


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


     EMPNO ENAME      JOB              MGR HIREDATE         SAL       COMM
---------- ---------- --------- ---------- --------- ---------- ----------
    DEPTNO
----------
      7900 JAMES      CLERK           7698 03-DEC-81        950
        30

      7934 MILLER     CLERK           7782 23-JAN-82       1300
        10


14 rows selected.
```


Submitted by Gudi Varaprasad – 19BCE7048

2. Display the depart information from department table

> select * from dept;

```
SQL> select * from dept;

    DEPTNO DNAME          LOC
---------- -------------- -------------
        10 ACCOUNTING     NEW YORK
        20 RESEARCH       DALLAS
        30 SALES          CHICAGO
        40 OPERATIONS     BOSTON
```

3. Display the name and job for all the employees

> select ename,job from emp;

```
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

ENAME      JOB
---------- ---------
ADAMS      CLERK
JAMES      CLERK
MILLER     CLERK

14 rows selected.
```

4. Display the name and salary for all the employees

> select ename,sal from emp;

```
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

ENAME             SAL
---------- ----------
ADAMS            1100
JAMES             950
MILLER           1300

14 rows selected.
```

5. Display the employee no and total salary for all the employees

> select empno,ename,sal,comm, sal+nvl(comm,0) as "total salary" from emp;

```
SQL> select empno,ename,sal,comm, sal+nvl(comm,0) as "total salary" from emp;

     EMPNO ENAME            SAL       COMM total salary
---------- ---------- ---------- ---------- ------------
      7839 KING             5000                  5000
      7698 BLAKE            2850                  2850
      7782 CLARK            2450                  2450
      7566 JONES            2975                  2975
      7788 SCOTT            3000                  3000
      7902 FORD             3000                  3000
      7369 SMITH             800                   800
      7499 ALLEN            1600        300         1900
      7521 WARD             1250        500         1750
      7654 MARTIN           1250       1400         2650
      7844 TURNER           1500          0         1500

     EMPNO ENAME            SAL       COMM total salary
---------- ---------- ---------- ---------- ------------
      7876 ADAMS            1100                  1100
      7900 JAMES             950                   950
      7934 MILLER           1300                  1300

14 rows selected.
```

6. Display the employee's name and annual salary for all employees.

> select ename, 12*(sal+nvl(comm,0)) as "annual Sal" from emp;

```
SQL> select ename, 12*(sal+nvl(comm,0)) as "annual Sal" from emp;

ENAME      annual Sal
---------- ----------
KING            60000
BLAKE           34200
CLARK           29400
JONES           35700
SCOTT           36000
FORD            36000
SMITH            9600
ALLEN           22800
WARD            21000
MARTIN          31800
TURNER          18000

ENAME      annual Sal
---------- ----------
ADAMS           13200
JAMES           11400
MILLER          15600

14 rows selected.
```

7. Display the names of all the employees who are working in depart number 10.

> select ename from emp where deptno=10;

```
SQL> select ename from emp where deptno=10;

ENAME
----------
KING
CLARK
MILLER
```


Submitted by Gudi Varaprasad – 19BCE7048

8. Display the names of all the employees who are working as clerks and drawing a salary more than 3000.

> select ename from emp where job='CLERK' and sal>3000;

```
SQL> select ename from emp where job='CLERK' and sal>3000;

no rows selected
```

9. Display the employee number and name who are earning comm.

> select empno,ename from emp where comm is not null;

```
SQL> select empno,ename from emp where comm is not null;

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

10. Display the employee number and name who do not earn any comm.

> select empno,ename from emp where comm is null;

```
SQL> select empno,ename from emp where comm is null;

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

10 rows selected.
```

11. Display the names of employees who are working as clerks, salesman or analyst and drawing a salary more than 3000.

> select ename from emp where job='CLERK' OR JOB='SALESMAN' OR JOB='ANALYST' AND SAL>3000;

```
SQL> select ename from emp where job='CLERK' OR JOB='SALESMAN' OR JOB='ANALYST' AND SAL>3000;

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

8 rows selected.
```

12. Display the names of the employees who are working in the company for the past 5 years;

> select ename from emp where to_char(sysdate,'YYYY') to_char(hiredate,'YYYY')>=5;

```
SQL> select ename from emp where to_char(sysdate,'YYYY')-to_char(hiredate,'YYYY')>=5;

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

ENAME
----------
ADAMS
JAMES
MILLER

14 rows selected.
```

13. Display the list of employees who have joined the company before 30-JUN-90 or after 31-DEC-90.

> select ename from emp where hiredate < '30-JUN-1990' or hiredate >'31-DEC-90';

```
SQL> select ename from emp where hiredate < '30-JUN-1990' or hiredate >'31-DEC-90';

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

ENAME
----------
ADAMS
JAMES
MILLER

14 rows selected.
```

14. Display current Date.

> select sysdate from dual;

```
SQL> select sysdate from dual;

SYSDATE
---------
01-APR-21
```

15. Display the list of all users in your database(use catalog table).

> select username from all_users;

```
SQL> select username from all_users;

USERNAME
------------------------------
XS$NULL
APEX_040000
APEX_PUBLIC_USER
FLOWS_FILES
HR
MDSYS
ANONYMOUS
XDB
CTXSYS
APPQOSSYS
DBSNMP

USERNAME
------------------------------
ORACLE_OCM
DIP
OUTLN
SYSTEM
SYS

16 rows selected.
```

16. Display the names of all tables from current user;

> select tname from tab;

```
SQL> select tname from tab;

TNAME
------------------------------
AQ$DEF$_AQCALL
AQ$DEF$_AQERROR
AQ$_DEF$_AQCALL_F
AQ$_DEF$_AQERROR_F
AQ$_INTERNET_AGENTS
AQ$_INTERNET_AGENT_PRIVS
AQ$_QUEUES
AQ$_QUEUE_TABLES
AQ$_SCHEDULES
CATALOG
COL

TNAME
------------------------------
CUSTOMER
CUSTOMEREMPLOYEE
DEF$_AQCALL
DEF$_AQERROR
DEF$_CALLDEST
DEF$_DEFAULTDEST
DEF$_DESTINATION
DEF$_ERROR
DEF$_LOB
DEF$_ORIGIN
DEF$_PROPAGATOR

TNAME
------------------------------
DEF$_PUSHED_TRANSACTIONS
DEPT
EMP
EMPLOYEE
HELP
```

.....

```
TNAME
------------------------------
REPCAT$_SITES_NEW
REPCAT$_SITE_OBJECTS
REPCAT$_SNAPGROUP
REPCAT$_TEMPLATE_OBJECTS
REPCAT$_TEMPLATE_PARMS
REPCAT$_TEMPLATE_REFGROUPS
REPCAT$_TEMPLATE_SITES
REPCAT$_TEMPLATE_STATUS
REPCAT$_TEMPLATE_TARGETS
REPCAT$_TEMPLATE_TYPES
REPCAT$_USER_AUTHORIZATIONS

TNAME
------------------------------
REPCAT$_USER_PARM_VALUES
SALES
SALESPERSON
SAMPLETABLE
SQLPLUS_PRODUCT_PROFILE
SYSCATALOG
SYSFILES
TAB
TABLE1
TABLE2
TABQUOTAS

TNAME
------------------------------
TEST_DB

188 rows selected.
```

17. Display the name of the current user.

> show user;

```
SQL> show user;
USER is "SYSTEM"
SQL>
```

18. Display the names of employees working in depart number 10 or 20 or 40 or employees working as CLERKS,SALESMAN or ANALYST.

> select ename from emp where deptno in(10,20,40) or job in('CLERKS','SALESMAN','ANALYST');

```
SQL> select ename from emp where deptno in(10,20,40) or job in('CLERKS','SALESMAN','ANALYST');

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

ENAME
----------
MILLER

12 rows selected.
```

19. Display the names of employees whose name starts with alphabet S.

> select ename from emp where ename like 'S%';

```
SQL> select ename from emp where ename like 'S%';

ENAME
----------
SCOTT
SMITH
```

20. Display the Employee names for employees whose name ends with alphabet S.

> select ename from emp where ename like '%S';

```
SQL> select ename from emp where ename like '%S';

ENAME
----------
JONES
ADAMS
JAMES
```

21. Display the names of employees whose names have second alphabet A in their names.

> select ename from emp where ename like '_A%';

```
SQL> select ename from emp where ename like '_A%';

ENAME
----------
WARD
MARTIN
JAMES
```

22. Select the names of the employee whose names is exactly five characters in length.

> select ename from emp where length(ename)=5;

```
SQL> select ename from emp where length(ename)=5;

ENAME
----------
BLAKE
CLARK
JONES
SCOTT
SMITH
ALLEN
ADAMS
JAMES

8 rows selected.
```

23. Display the names of the employee who are not working as MANAGERS.

> select ename from emp where job not in('MANAGER');

```
SQL> select ename from emp where job not in('MANAGER');

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

11 rows selected.
```

24. Display the names of the employee who are not working as SALESMAN OR CLERK OR ANALYST.

> select ename from emp where job not in('SALESMAN','CLERK','ANALYST');

```
SQL> select ename from emp where job not in('SALESMAN','CLERK','ANALYST');

ENAME
----------
KING
BLAKE
CLARK
JONES
```

25. Display all rows from emp table. The system should wait after every screen full of information.

> set pause on;

> set pause off;

26. Display the total number of employee working in the company.

> select count(*) from emp;

```
SQL> select count(*) from emp;

  COUNT(*)
----------
        14
```

27. Display the total salary being paid to all employees.

> select sum(sal) from emp;

```
SQL> select sum(sal) from emp;

  SUM(SAL)
----------
     29025
```

28. Display the maximum salary from emp table.

> select max(sal) from emp;

```
SQL> select max(sal) from emp;

  MAX(SAL)
----------
      5000
```


Submitted by Gudi Varaprasad – 19BCE7048

29. Display the minimum salary from emp table.

> select min(sal) from emp;

```
SQL> select min(sal) from emp;

  MIN(SAL)
----------
       800
```

30. Display the average salary from emp table.

> select avg(sal) from emp;

```
SQL> select avg(sal) from emp;

  AVG(SAL)
----------
2073.21429
```

31. Display the maximum salary being paid to CLERK.

> select max(sal) from emp where job='CLERK';

```
SQL> select max(sal) from emp where job='CLERK';

  MAX(SAL)
----------
      1300
```

32. Display the maximum salary being paid to depart number 20.

> select max(sal) from emp where deptno=20;

```
SQL> select max(sal) from emp where deptno=20;

  MAX(SAL)
----------
      3000
```

33. Display the minimum salary being paid to any SALESMAN.

> select min(sal) from emp where job='SALESMAN';

```
SQL> select min(sal) from emp where job='SALESMAN';

  MIN(SAL)
----------
      1250
```

34. Display the average salary drawn by MANAGERS

> select avg(sal) from emp where job='MANAGER';

```
SQL> select avg(sal) from emp where job='MANAGER';

  AVG(SAL)
----------
2758.33333
```

35. Display the total salary drawn by ANALYST working in depart number 40.

> select sum(sal) from emp where job='ANALYST' and deptno=40;

```
SQL> select sum(sal) from emp where job='ANALYST' and deptno=40;

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

36. Display the names of the employee in order of salary i.e the name of the employee earning lowest salary should salary appear first.

> select ename from emp order by sal;

```
SQL> select ename from emp order by sal;

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

ENAME
----------
FORD
SCOTT
KING

14 rows selected.
```

37. Display the names of the employee in descending order of salary.

> select ename from emp order by sal desc;

```
SQL> select ename from emp order by sal desc;

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

ENAME
----------
ADAMS
JAMES
SMITH

14 rows selected.
```

38. Display the names of the employee in order of employee name.

> select ename from emp order by ename;

```
SQL> select ename from emp order by ename;

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

ENAME
----------
SMITH
TURNER
WARD

14 rows selected.
```

39. Display empno, ename, deptno, sal sort the output first based on name and within name by deptno and within deptno by sal.

> select empno,ename,deptno,sal from emp order by ename,deptno,sal;

```
SQL> select empno,ename,deptno,sal from emp order by ename,deptno,sal;

     EMPNO ENAME          DEPTNO        SAL
---------- ---------- ---------- ----------
      7876 ADAMS              20       1100
      7499 ALLEN              30       1600
      7698 BLAKE              30       2850
      7782 CLARK              10       2450
      7902 FORD               20       3000
      7900 JAMES              30        950
      7566 JONES              20       2975
      7839 KING               10       5000
      7654 MARTIN             30       1250
      7934 MILLER             10       1300
      7788 SCOTT              20       3000

     EMPNO ENAME          DEPTNO        SAL
---------- ---------- ---------- ----------
      7369 SMITH              20        800
      7844 TURNER             30       1500
      7521 WARD               30       1250

14 rows selected.
```

40. Display the name of the employee along with their annual salary(sal*12).The name of the employee earning highest annual salary should appear first.

> select ename,sal*12 from emp order by sal desc;

```
SQL> select ename,sal*12 from emp order by sal desc;

ENAME          SAL*12
---------- ----------
KING            60000
SCOTT           36000
FORD            36000
JONES           35700
BLAKE           34200
CLARK           29400
ALLEN           19200
TURNER          18000
MILLER          15600
MARTIN          15000
WARD            15000

ENAME          SAL*12
---------- ----------
ADAMS           13200
JAMES           11400
SMITH            9600

14 rows selected.
```

41. Display name, salary, hra, pf, da, total salary for each employee. The output should be in the order of total salary, hra 15% of salary, da 10% of salary, pf 5% salary, total salary will be(salary + hra + da)-pf.

> select ename,sal,sal/100*15 as hra,sal/100*5 as pf,sal/100*10 as da, sal+sal/100*15+sal/100*10-sal/100*5 as total from emp;

```
SQL> select ename,sal,sal/100*15 as hra,sal/100*5 as pf,sal/100*10 as da, sal+sal/100*15+sal/100*10-sal/100*5 as total from emp;

ENAME            SAL        HRA         PF         DA      TOTAL
---------- ---------- ---------- ---------- ---------- ----------
KING             5000        750        250        500       6000
BLAKE            2850      427.5      142.5        285       3420
CLARK            2450      367.5      122.5        245       2940
JONES            2975     446.25     148.75      297.5       3570
SCOTT            3000        450        150        300       3600
FORD             3000        450        150        300       3600
SMITH             800        120         40         80        960
ALLEN            1600        240         80        160       1920
WARD             1250      187.5       62.5        125       1500
MARTIN           1250      187.5       62.5        125       1500
TURNER           1500        225         75        150       1800

ENAME            SAL        HRA         PF         DA      TOTAL
---------- ---------- ---------- ---------- ---------- ----------
ADAMS            1100        165         55        110       1320
JAMES             950      142.5       47.5         95       1140
MILLER           1300        195         65        130       1560

14 rows selected.
```

42. Display depart numbers and total number of employees working in each department.

> select deptno,count(deptno)from emp group by deptno;

```
SQL> select deptno,count(deptno)from emp group by deptno;

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

43. Display the various jobs and total number of employees within each job group.

> select job,count(job)from emp group by job;

```
SQL> select job,count(job)from emp group by job;

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

44. Display the depart numbers and total salary for each department.

> select deptno,sum(sal) from emp group by deptno;

```
SQL> select deptno,sum(sal) from emp group by deptno;

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

45. Display the depart numbers and max salary for each department.

> select deptno,max(sal) from emp group by deptno;

```
SQL> select deptno,max(sal) from emp group by deptno;

    DEPTNO   MAX(SAL)
---------- ----------
        30       2850
        20       3000
        10       5000
```

46. Display the various jobs and total salary for each job

> select job,sum(sal) from emp group by job;

```
SQL> select job,sum(sal) from emp group by job;

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

47. Display the various jobs and minimum salary for each job

> select job,min(sal) from emp group by job;

```
SQL> select job,min(sal) from emp group by job;

JOB         MIN(SAL)
--------- ----------
CLERK            800
SALESMAN        1250
PRESIDENT       5000
MANAGER         2450
ANALYST         3000
```

48. Display the depart numbers with more than three employees in each dept.

> select deptno,count(deptno) from emp group by deptno having count(*)>3;

```
SQL> select deptno,count(deptno) from emp group by deptno having count(*)>3;

    DEPTNO COUNT(DEPTNO)
---------- -------------
        30             6
        20             5
```

49. Display the various jobs along with total salary for each of the jobs where total salary is greater than 4000.

> select job,sum(sal) from emp group by job having sum(sal)>4000;

```
SQL> select job,sum(sal) from emp group by job having sum(sal)>4000;

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

50. Display the various jobs along with total number of employees in each job. The output should contain only those jobs with more than three employees.

> select job,count(empno) from emp group by job having count(job)>3;

```
SQL> select job,count(empno) from emp group by job having count(job)>3;

JOB       COUNT(EMPNO)
--------- ------------
CLERK                4
SALESMAN             4
```

51. Display the name of the employee who earns highest salary.

> select ename from emp where sal=(select max(sal) from emp);

```
SQL> select ename from emp where sal=(select max(sal) from emp);

ENAME
----------
KING
```

52. Display the employee number and name for employee working as clerk and earning highest salary among clerks.

> select empno,ename from emp where job='CLERK' and sal=(select max(sal) from emp where job='CLERK');

```
SQL> select empno,ename from emp where job='CLERK' and sal=(select max(sal) from emp where job='CLERK');

     EMPNO ENAME
---------- ----------
      7934 MILLER
```

53. Display the names of salesman who earns a salary more than the highest salary of any clerk.

> select ename,sal from emp where job='SALESMAN' and sal>(select max(sal) from emp where job='CLERK');

```
SQL> select ename,sal from emp where job='SALESMAN' and sal>(select max(sal) from emp where job='CLERK');

ENAME             SAL
---------- ----------
ALLEN            1600
TURNER           1500
```

54. Display the names of clerks who earn a salary more than the lowest salary of any salesman

> select ename from emp where job='CLERK' and sal>(select min(sal) from emp where job='SALESMAN');

```
SQL> select ename from emp where job='CLERK' and sal>(select min(sal) from emp where job='SALESMAN');

ENAME
----------
MILLER
```

Display the names of employees who earn a salary more than that of Jones or that of salary greater than that of Scott.

> select ename,sal from emp where sal> (select sal from emp where ename='JONES')and sal> (select sal from emp where ename='SCOTT');

```
SQL> select ename,sal from emp where sal> (select sal from emp where ename='JONES')and sal> (select sal from emp where ename='SCOTT');

ENAME             SAL
---------- ----------
KING             5500
```

55. Display the names of the employees who earn highest salary in their respective departments

> select ename,sal,deptno from emp where sal in(select max(sal) from emp group by deptno);

```
SQL> select ename,sal,deptno from emp where sal in(select max(sal) from emp group by deptno);

ENAME             SAL     DEPTNO
---------- ---------- ----------
KING             5000         10
BLAKE            2850         30
SCOTT            3000         20
FORD             3000         20
```

56. Display the names of the employees who earn highest salaries in their respective job groups

> select ename,sal,job from emp where sal in(select max(sal) from emp group by job);

```
SQL> select ename,sal,job from emp where sal in(select max(sal) from emp group by job);

ENAME             SAL JOB
---------- ---------- ---------
KING             5000 PRESIDENT
JONES            2975 MANAGER
SCOTT            3000 ANALYST
FORD             3000 ANALYST
ALLEN            1600 SALESMAN
MILLER           1300 CLERK

6 rows selected.
```

57. Display the employee names who are working in accounting department.

> select ename from emp where deptno=(select deptno from dept where dname='ACCOUNTING');

```
SQL> select ename from emp where deptno=(select deptno from dept where dname='ACCOUNTING');

ENAME
----------
KING
CLARK
MILLER
```

58. Display the employee names who are working in Chicago.

> select ename from emp where deptno=(select deptno from dept where LOC='CHICAGO');

```
SQL> select ename from emp where deptno=(select deptno from dept where LOC='CHICAGO');

ENAME
----------
BLAKE
ALLEN
WARD
MARTIN
TURNER
JAMES

6 rows selected.
```

59. Display the Job groups having total salary greater than the maximum salary for managers.

> SELECT JOB,SUM(SAL) FROM EMP GROUP BY JOB HAVING SUM(SAL)>(SELECT MAX(SAL) FROM EMP WHERE JOB='MANAGER');

```
SQL> SELECT JOB,SUM(SAL) FROM EMP GROUP BY JOB HAVING SUM(SAL)>(SELECT MAX(SAL) FROM EMP WHERE JOB='MANAGER');

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

60. Display the names of employees from department number 10 with salary greater than that of any employee working in other department.

> select ename from emp where deptno=10 and sal>any(select sal from emp where deptno not in 10);

```
SQL> select ename from emp where deptno=10 and sal>any(select sal from emp where deptno not in 10);

ENAME
----------
KING
CLARK
MILLER
```

61. Display the names of the employees from department number 10 with salary greater than that of all employee working in other departments.

> select ename from emp where deptno=10 and sal>all(select sal from emp where deptno not in 10);

```
SQL> select ename from emp where deptno=10 and sal>all(select sal from emp where deptno not in 10);

ENAME
----------
KING
```

62. Display the names of the employees in Uppercase.

> select upper(ename)from emp;

```
SQL> select upper(ename)from emp;

UPPER(ENAM
----------
KING
BLAKE
CLARK
JONES
SCOTT
FORD
SMITH
ALLEN
WARD
MARTIN
TURNER

UPPER(ENAM
----------
ADAMS
JAMES
MILLER

14 rows selected.
```

63. Display the names of the employees in Lowercase.

> select lower(ename)from emp;

```
SQL> select lower(ename)from emp;

LOWER(ENAM
----------
king
blake
clark
jones
scott
ford
smith
allen
ward
martin
turner

LOWER(ENAM
----------
adams
james
miller

14 rows selected.
```

64. Display the names of the employees in Proper case.

> select initcap(ename)from emp;

```
SQL> select initcap(ename)from emp;

INITCAP(EN
----------
King
Blake
Clark
Jones
Scott
Ford
Smith
Allen
Ward
Martin
Turner

INITCAP(EN
----------
Adams
James
Miller

14 rows selected.
```

65. Display the length of Your name using appropriate function.

> select length('Varaprasad') from dual;

```
SQL> select length('Varaprasad') from dual;

LENGTH('VARAPRASAD')
--------------------
                  10
```

66. Display the length of all the employee names

> select length(ename) from emp;

```
SQL> select length(ename) from emp;

LENGTH(ENAME)
-------------
            4
            5
            5
            5
            5
            4
            5
            5
            4
            6
            6

LENGTH(ENAME)
-------------
            5
            5
            6

14 rows selected.
```

67. Select name of the employee concatenate with employee number.

> select ename||empno from emp;

```
SQL> select ename||empno from emp;

ENAME||EMPNO
------------------------------------------------
KING7839
BLAKE7698
CLARK7782
JONES7566
SCOTT7788
FORD7902
SMITH7369
ALLEN7499
WARD7521
MARTIN7654
TURNER7844

ENAME||EMPNO
------------------------------------------------
ADAMS7876
JAMES7900
MILLER7934

14 rows selected.
```

68. User appropriate function and extract 3 characters starting from 2 characters from the following string 'Oracle'. i.e the output should be 'ac'.

> select substr('oracle',3,2) from dual;

```
SQL> select substr('oracle',3,2) from dual;

SU
--
ac
```

69. Find the First occurrence of character 'a' from the following string i.e 'Computer Maintenance Corporation'.

> SELECT INSTR('Computer Maintenance Corporation','a',1) as "1st occurrence" FROM DUAL;

```
SQL> SELECT INSTR('Computer Maintenance Corporation','a',1) as "1st occurrence" FROM DUAL;

1st occurrence
--------------
            11
```

70. Replace every occurrence of alphabet A with B in the string Allens(use translate function)

> select translate('Allens','A','B') from dual;

```
SQL> select translate('Allens','A','B') from dual;

TRANSL
------
Bllens
```

71. Display the information from emp table. Where job manager is found it should be displayed as boos(Use replace function).

> select replace(JOB,'MANAGER','BOSS') FROM EMP;

```
SQL> select replace(JOB,'MANAGER','BOSS') FROM EMP;

REPLACE(JOB,'MANAGER','BOSS')
-----------------------------------
PRESIDENT
BOSS
BOSS
BOSS
ANALYST
ANALYST
CLERK
SALESMAN
SALESMAN
SALESMAN
SALESMAN

REPLACE(JOB,'MANAGER','BOSS')
-----------------------------------
CLERK
CLERK
CLERK

14 rows selected.
```

72. Display empno, ename, deptno from emp table. Instead of display department numbers display the related department name(Use decode function).

> select empno,ename,decode
(deptno,10,'ACCOUNTING',20,'RESEARCH',30,'SALES',40,'OPRATIONS') from emp;

```
SQL> select empno,ename,decode(deptno,10,'ACCOUNTING',20,'RESEARCH',30,'SALES',40,'OPRATIONS') from emp;

     EMPNO ENAME      DECODE(DEP
---------- ---------- ----------
      7839 KING       ACCOUNTING
      7698 BLAKE      SALES
      7782 CLARK      ACCOUNTING
      7566 JONES      RESEARCH
      7788 SCOTT      RESEARCH
      7902 FORD       RESEARCH
      7369 SMITH      RESEARCH
      7499 ALLEN      SALES
      7521 WARD       SALES
      7654 MARTIN     SALES
      7844 TURNER     SALES

     EMPNO ENAME      DECODE(DEP
---------- ---------- ----------
      7876 ADAMS      RESEARCH
      7900 JAMES      SALES
      7934 MILLER     ACCOUNTING

14 rows selected.
```

73. Display your age in days.

> select to_date(sysdate)-to_date('22-oct-01') as "Total Days" from dual;

```
SQL> select to_date(sysdate)-to_date('22-oct-01') as "Total Days" from dual;

Total Days
----------
      7101
```

74. Display your age in months.

> select months_between(sysdate,'22-oct-01') as "Total Months" from dual;

```
SQL> select months_between(sysdate,'22-oct-01') as "Total Months" from dual;

Total Months
------------
  233.351159
```

75. Display the current date as characters/string.

> select to_char(sysdate,'ddth Month day year') from dual;

```
SQL> select to_char(sysdate,'ddth Month day year') from dual;

TO_CHAR(SYSDATE,'DDTHMONTHDAYYEAR')
--------------------------------------------------------------------------------
01st April     thursday  twenty twenty-one
```

76. Display the following output for each row from emp table. Scott has joined the company on Wednesday 13th August nineteen ninety.

> select ENAME||' HAS JOINED THE COMPANY ON '||to_char(HIREDATE,'day ddth Month year') from EMP;

```
SQL> select ENAME||' HAS JOINED THE COMPANY ON '||to_char(HIREDATE,'day ddth Month year') from EMP;

ENAME||'HASJOINEDTHECOMPANYON'||TO_CHAR(HIREDATE,'DAYDDTHMONTHYEAR')
--------------------------------------------------------------------------------
KING HAS JOINED THE COMPANY ON tuesday   17th November  nineteen eighty-one
BLAKE HAS JOINED THE COMPANY ON friday    01st May       nineteen eighty-one
CLARK HAS JOINED THE COMPANY ON tuesday   09th June      nineteen eighty-one
JONES HAS JOINED THE COMPANY ON thursday  02nd April     nineteen eighty-one
SCOTT HAS JOINED THE COMPANY ON sunday    19th April     nineteen eighty-seven
FORD HAS JOINED THE COMPANY ON thursday  03rd December  nineteen eighty-one
SMITH HAS JOINED THE COMPANY ON wednesday 17th December  nineteen eighty
ALLEN HAS JOINED THE COMPANY ON friday    20th February  nineteen eighty-one
WARD HAS JOINED THE COMPANY ON sunday    22nd February  nineteen eighty-one
MARTIN HAS JOINED THE COMPANY ON monday    28th September nineteen eighty-one
TURNER HAS JOINED THE COMPANY ON tuesday   08th September nineteen eighty-one

ENAME||'HASJOINEDTHECOMPANYON'||TO_CHAR(HIREDATE,'DAYDDTHMONTHYEAR')
--------------------------------------------------------------------------------
ADAMS HAS JOINED THE COMPANY ON saturday  23rd May       nineteen eighty-seven
JAMES HAS JOINED THE COMPANY ON thursday  03rd December  nineteen eighty-one
MILLER HAS JOINED THE COMPANY ON saturday  23rd January   nineteen eighty-two

14 rows selected.
```

77. Find the date for nearest Saturday after current date.

> SELECT NEXT_DAY(SYSDATE,'SATURDAY')FROM DUAL;

```
SQL> SELECT NEXT_DAY(SYSDATE,'SATURDAY')FROM DUAL;

NEXT_DAY(
---------
03-APR-21
```

78. Display current time

> select to_char(sysdate,'hh:MM:ss') from dual;

```
SQL> select to_char(sysdate,'hh:MM:ss') from dual;

TO_CHAR(
--------
09:04:08
```

79. Display the date three months Before the current date.

> select add_months(sysdate,3) from dual;

```
SQL> select add_months(sysdate,3) from dual;

ADD_MONTH
---------
01-JUL-21
```

80. Display the common jobs from department number 10 and 20.

> select job from emp where deptno=10 and job in(select job from emp where deptno=20);

```
SQL> select job from emp where deptno=10 and job in(select job from emp where deptno=20);

JOB
---------
MANAGER
CLERK
```

81. Display the jobs found in department 10 and 20 Eliminate duplicate jobs.

> select distinct(job) from emp where deptno=10 or deptno=20;

```
SQL> select distinct(job) from emp where deptno=10 or deptno=20;

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

82. Display the jobs which are unique to department 10.

> select distinct(job) from emp where deptno=10;

```
SQL> select distinct(job) from emp where deptno=10;

JOB
---------
CLERK
PRESIDENT
MANAGER
```

83. Display the details of those who do not have any person working under them.

> select e.ename from emp,emp e where emp.mgr=e.empno group by e.ename having count(*)=1;

```
SQL> select e.ename from emp,emp e where emp.mgr=e.empno group by e.ename having count(*)=1;

ENAME
----------
FORD
CLARK
SCOTT
```

84. Display the details of those employees who are in sales department and grade is 3.

> select * from emp where deptno=(select deptno from dept where dname='SALES')and sal between(select losal from salgrade where grade=3)and (select hisal from salgrade where grade=3);

```
SQL> select * from emp where deptno=(select deptno from dept where dname='SALES')and sal between(select losal from salgrade where grade=3)and (select hisal from salgrade where grade=3);

    EMPNO ENAME      JOB              MGR HIREDATE         SAL       COMM
---------- ---------- --------- ---------- --------- ---------- ----------
   DEPTNO
----------
     7499 ALLEN      SALESMAN       7698 20-FEB-81       1600        300
       30

     7844 TURNER     SALESMAN       7698 08-SEP-81       1500          0
       30
```

85. Display those who are not managers and who are managers any one.

i)display the managers names

> select distinct(m.ename) from emp e,emp m where m.empno=e.mgr;

```
SQL> select distinct(m.ename) from emp e,emp m where m.empno=e.mgr;

ENAME
----------
JONES
FORD
CLARK
SCOTT
KING
BLAKE

6 rows selected.
```

ii)display the who are not managers

> select ename from emp where ename not in(select distinct(m.ename) from emp e,emp m where m.empno=e.mgr);

```
SQL> select ename from emp where ename not in(select distinct(m.ename) from emp e,emp m where m.empno=e.mgr);

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

8 rows selected.
```

86. Display those employee whose name contains not less than 4 characters.

> select ename from emp where length(ename)>4;

```
SQL> select ename from emp where length(ename)>4;

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

11 rows selected.
```

87. Display those department whose name start with "S" while the location name ends with "K".

> select dname from dept where dname like 'S%' and loc like '%K';

```
SQL> select dname from dept where dname like 'S%' and loc like '%K';

no rows selected
```

88. Display those employees whose manager name is JONES.

> select p.ename from emp e,emp p where e.empno=p.mgr and e.ename='JONES';

```
SQL> select p.ename from emp e,emp p where e.empno=p.mgr and e.ename='JONES';

ENAME
----------
SCOTT
FORD
```

89. Display those employees whose salary is more than 3000 after giving 20% increment.

> select ename,sal from emp where (sal+sal*.2)>3000;

```
SQL> select ename,sal from emp where (sal+sal*.2)>3000;

ENAME             SAL
---------- ----------
KING             5000
BLAKE            2850
JONES            2975
SCOTT            3000
FORD             3000
```

90. Display all employees while their dept names.

> select ename,dname from emp,dept where emp.deptno=dept.deptno;

```
SQL> select ename,dname from emp,dept where emp.deptno=dept.deptno;

ENAME      DNAME
---------- --------------
KING       ACCOUNTING
BLAKE      SALES
CLARK      ACCOUNTING
JONES      RESEARCH
SCOTT      RESEARCH
FORD       RESEARCH
SMITH      RESEARCH
ALLEN      SALES
WARD       SALES
MARTIN     SALES
TURNER     SALES

ENAME      DNAME
---------- --------------
ADAMS      RESEARCH
JAMES      SALES
MILLER     ACCOUNTING

14 rows selected.
```

91. Display ename who are working in sales dept.

> select ename from emp where deptno=(select deptno from dept where dname='SALES');

```
SQL> select ename from emp where deptno=(select deptno from dept where dname='SALES');

ENAME
----------
BLAKE
ALLEN
WARD
MARTIN
TURNER
JAMES

6 rows selected.
```

92. Display employee name, deptname, salary and comm for those sal in between 2000 to 5000 while location is Chicago.

> select ename,dname,sal,comm from emp,dept where sal between 2000 and 5000 and loc='CHICAGO' and emp.deptno=dept.deptno;

```
SQL> select ename,dname,sal,comm from emp,dept where sal between 2000 and 5000 and loc='CHICAGO' and emp.deptno=dept.deptno;

ENAME      DNAME               SAL       COMM
---------- -------------- ---------- ----------
BLAKE      SALES              2850
```

93. Display those employees whose salary greater than his manager salary.

> select p.ename from emp e,emp p where e.empno=p.mgr and p.sal>e.sal;

```
SQL> select p.ename from emp e,emp p where e.empno=p.mgr and p.sal>e.sal;

ENAME
----------
FORD
SCOTT
```

94. Display those employees who are working in the same dept where his manager is work.

> select p.ename from emp e,emp p where e.empno=p.mgr and p.deptno=e.deptno;

```
SQL> select p.ename from emp e,emp p where e.empno=p.mgr and p.deptno=e.deptno;

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

11 rows selected.
```

95. Display those employees who are not working under any manager.

> select ename from emp where mgr is null;

```
SQL> select ename from emp where mgr is null;

ENAME
----------
KING
```

96. Display grade and employees name for the dept no 10 or 30 but grade is not 4 while joined the company before 31-dec-82.

> select ename,grade from emp,salgrade where sal between losal and hisal and deptno in(10,30) and grade<>4 and hiredate<'31-DEC-82';

```
SQL> select ename,grade from emp,salgrade where sal between losal and hisal and deptno in(10,30) and grade<>4 and hiredate<'31-DEC-82';

ENAME           GRADE
---------- ----------
JAMES               1
WARD                2
MARTIN              2
ALLEN               3
TURNER              3
MILLER              3
KING                5
BLAKE               5

8 rows selected.
```

97. Update the salary of each employee by 10% increment who are not eligible for commission.

> update emp set sal=sal+sal*10/100 where comm is null;

```
SQL> update emp set sal=sal+sal*10/100 where comm is null;

10 rows updated.
```

98. SELECT those employee who joined the company before 31-dec-82 while their dept location is New York or Chicago.

> SELECT EMPNO,ENAME,HIREDATE,DNAME,LOC FROM EMP,DEPT WHERE (EMP.DEPTNO=DEPT.DEPTNO)AND HIREDATE <'31-DEC-82' AND DEPT.LOC IN('CHICAGO','NEW YORK');

```
SQL> SELECT EMPNO,ENAME,HIREDATE,DNAME,LOC FROM EMP,DEPT WHERE (EMP.DEPTNO=DEPT.DEPTNO)AND HIREDATE <'31-DEC-82' AND DEPT.LOC IN('CHICAGO','NEW YORK');

     EMPNO ENAME      HIREDATE  DNAME          LOC
---------- ---------- --------- -------------- -------------
      7839 KING       17-NOV-81 ACCOUNTING     NEW YORK
      7698 BLAKE      01-MAY-81 SALES          CHICAGO
      7782 CLARK      09-JUN-81 ACCOUNTING     NEW YORK
      7499 ALLEN      20-FEB-81 SALES          CHICAGO
      7521 WARD       22-FEB-81 SALES          CHICAGO
      7654 MARTIN     28-SEP-81 SALES          CHICAGO
      7844 TURNER     08-SEP-81 SALES          CHICAGO
      7900 JAMES      03-DEC-81 SALES          CHICAGO
      7934 MILLER     23-JAN-82 ACCOUNTING     NEW YORK

9 rows selected.
```

99. Display employee name, job, department, location for all who are working as manager?

> select ename,JOB,DNAME,LOC from emp,DEPT where mgr is not null;

```
SQL> select ename,JOB,DNAME,LOC from emp,DEPT where mgr is not null;

ENAME      JOB       DNAME          LOC
---------- --------- -------------- -------------
BLAKE      MANAGER   ACCOUNTING     NEW YORK
CLARK      MANAGER   ACCOUNTING     NEW YORK
JONES      MANAGER   ACCOUNTING     NEW YORK
SCOTT      ANALYST   ACCOUNTING     NEW YORK
FORD       ANALYST   ACCOUNTING     NEW YORK
SMITH      CLERK     ACCOUNTING     NEW YORK
ALLEN      SALESMAN  ACCOUNTING     NEW YORK
WARD       SALESMAN  ACCOUNTING     NEW YORK
MARTIN     SALESMAN  ACCOUNTING     NEW YORK
TURNER     SALESMAN  ACCOUNTING     NEW YORK
ADAMS      CLERK     ACCOUNTING     NEW YORK

ENAME      JOB       DNAME          LOC
---------- --------- -------------- -------------
JAMES      CLERK     ACCOUNTING     NEW YORK
MILLER     CLERK     ACCOUNTING     NEW YORK
BLAKE      MANAGER   RESEARCH       DALLAS
CLARK      MANAGER   RESEARCH       DALLAS
JONES      MANAGER   RESEARCH       DALLAS
SCOTT      ANALYST   RESEARCH       DALLAS
FORD       ANALYST   RESEARCH       DALLAS
SMITH      CLERK     RESEARCH       DALLAS
ALLEN      SALESMAN  RESEARCH       DALLAS
WARD       SALESMAN  RESEARCH       DALLAS
MARTIN     SALESMAN  RESEARCH       DALLAS

ENAME      JOB       DNAME          LOC
---------- --------- -------------- -------------
TURNER     SALESMAN  RESEARCH       DALLAS
ADAMS      CLERK     RESEARCH       DALLAS
JAMES      CLERK     RESEARCH       DALLAS
MILLER     CLERK     RESEARCH       DALLAS
BLAKE      MANAGER   SALES          CHICAGO
CLARK      MANAGER   SALES          CHICAGO
JONES      MANAGER   SALES          CHICAGO
SCOTT      ANALYST   SALES          CHICAGO
FORD       ANALYST   SALES          CHICAGO
SMITH      CLERK     SALES          CHICAGO
ALLEN      SALESMAN  SALES          CHICAGO
```

```
ENAME      JOB       DNAME          LOC
---------- --------- -------------- -------------
WARD       SALESMAN  SALES          CHICAGO
MARTIN     SALESMAN  SALES          CHICAGO
TURNER     SALESMAN  SALES          CHICAGO
ADAMS      CLERK     SALES          CHICAGO
JAMES      CLERK     SALES          CHICAGO
MILLER     CLERK     SALES          CHICAGO
BLAKE      MANAGER   OPERATIONS     BOSTON
CLARK      MANAGER   OPERATIONS     BOSTON
JONES      MANAGER   OPERATIONS     BOSTON
SCOTT      ANALYST   OPERATIONS     BOSTON
FORD       ANALYST   OPERATIONS     BOSTON

ENAME      JOB       DNAME          LOC
---------- --------- -------------- -------------
SMITH      CLERK     OPERATIONS     BOSTON
ALLEN      SALESMAN  OPERATIONS     BOSTON
WARD       SALESMAN  OPERATIONS     BOSTON
MARTIN     SALESMAN  OPERATIONS     BOSTON
TURNER     SALESMAN  OPERATIONS     BOSTON
ADAMS      CLERK     OPERATIONS     BOSTON
JAMES      CLERK     OPERATIONS     BOSTON
MILLER     CLERK     OPERATIONS     BOSTON

52 rows selected.
```

100. Display those employees whose manager name is jones? – [and also display their manager's name] ?

> SELECT P.ENAME FROM EMP E, EMP P WHERE E.EMPNO=P.MGR AND E.ENAME='JONES';

```
SQL> SELECT P.ENAME FROM EMP E, EMP P WHERE E.EMPNO=P.MGR AND E.ENAME='JONES';

ENAME
----------
SCOTT
FORD
```
