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| TITLE: DDL & DML COMMANDS | DATE:PAGE NO: 02 |

1. How to Communicate with RDBMS?

 A: SQL [Structure Query Language].

2. Create Columns in Employee Table is EMPN, ENAME, JOB, DEPTNO?

 SQL>Create table employee(empn number(5),ename varchar2(15),

 Job varchar2(10),deptno number(2));

 ->Add MANAGER ID Column to Employee Table.

 Sql:>alter table employee add(mgrid number(5));

 ->Add DOB, SALARY, HIRE DATE Columns to Employee Table?

 Sql:>alter table employee add(hiredate date,sal number(7,2),job

 varchar2(30),dob date);

 ->Change The Data Type of SALARY Column to Float?

 Sql:>alter table employee modify sal number(7,2);

 ->Increase the size of ENAME, MANAGERID to 30 Characters?

 Sql:>alter table employee modify(ename varchar(30),mgrid

varchar(30));

 ->Change the EMPNO to EMPLOYEE NO?

 Sql:> alter table employee rename column empno to employee no;

 ->Change ENAME to EMPLOYEE NAME?

 Sql:>alter table employee rename column ename to employee name;

 ->Describing the Structure of Employee Table?

 Sql:>desc employee;

 ->Drop the Column DEPTNO From Employee Table?

 Sql:>alter table employee drop deptno;

 ->Drop the Columns EMPLOYEE NO, JOB, SALARY?

 Sql:>alter table employee drop (employee no,job,sal);

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| TITLE: DDL & DML COMMANDS | DATE:PAGE NO: 03 |

->Rename the Employee Table to EMP1?

 Sql:>rename employee to emp1;

3. Write a Query to display all tables in SCOTT Login?

 SQL:> select \* from tab where tabtype=’TABLE’;

 **OUTPUT:**

 TNAME TABTYPE CLUSTERID

 ----------------------------- ------- - ---------

BEMP1 TABLE

BONUS TABLE

DEPARTMENT TABLE

DEPT TABLE

EMP TABLE

EMP1 TABLE

EMP11 TABLE

EMP16 TABLE

EMP3 TABLE

EMPLOYEE TABLE

EMPLOYEE1 TABLE

EMP\_COMPANY TABLE

SALGRADE TABLE

VIR TABLE

VIRAJITH TABLE

4. Insert values OR data base into DEPT1 table using Implict and Explict Method?

 A:

 **Implict Method:**

 Sql:>Insert into dept1(deptno,dname) values (30,’sales’);

 **Explict Method:**

 Sql:>insert into dept1 values (50,null);

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| TITLE: DDL & DML COMMANDS | DATE:PAGE NO: 04 |

5. Employee Table is

EMPNO ENAME SAL DEPTNO JOB COMM

--------- --------- ----- ----------- ----- ---------

101 RAM 1000 10 CLERK 100

102 JOHN NULL 20 MANAGER NULL

NULL SAM 3000 10 ANALYST NULL

104 NULL 4000 20 CLERK 200

->Increase The Salary of All the Employees 5000 Rs?

sql:> update employee set sal= sal+5000;

->Increase the Salary of Employee 500 who is working in DEPTNO 10?

sql:>update employee set sal=sal+500

 where deptno=10;

->Modify the salary of Employee to 20000 where Salary is Null?

sql:>update employee set sal=20000

 where sal is null;

->Modify EMPNO as 104, SALARY as 15000 who are working in DEPTNO 20 and

 working as CLERK.

 sql:>update employee set empno=104,sal=15000

 where deptno=20 and job=’clerk’;

->Modify the salaries of Employees to 10000 working in 10, 20 Departments?

 sql:>update employee set sal=10000

 where deptno =10 or deptno=20;

->Increase the salaries 1000 of all CLERKS if SAL < =1000?

 sql:>update employee set sal=sal+1000

 where job=’clerk’ and sal < 1000;

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| TITLE: DDL & DML COMMANDS | DATE:PAGE NO: 05 |

->Increase the Salary by 10% for Employees in the DEPTNO 10?

 sql:>update employee set sal=sal\*0.1

 where deptno=10;

->Delete the Employees who are working in DEPTNO 10?

 sql:>delete from employee

 where deptno=10;

->Delete the Employees whose salaries are NULL and working in DEPTNO 20?

 sql:>delete from employee

 where sal is null and deptno=20;

->Delete the Employees whose salaries are >= 1500 and <= 3000?

 sql:>delete from employee

 where sal>=1500 and sal<=3000;

->Delete all ANALYST data from Employee Table?

 sql:>delete from employee

 where job=’analyst’;

->Delete all 20th department, clerk data from Employee Table?

 sql:>delete from employee

 where job=’clerk’ and deptno=20;

->Delete all records in Employee Table?

 sql:>delete from emp;

|  |  |
| --- | --- |
| TITLE: DRL COMMANDS | DATE:PAGE NO: 06 |

6. WAQ to display all employees’ details?

 SQL> select \* from emp;

 **OUTPUT:**

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

7566 JONES MANAGER 7839 02-APR-81 2975 20

7698 BLAKE MANAGER 7839 01-MAY-81 2850 30

7782 CLARK MANAGER 7839 09-JUN-81 2450 10

7788 SCOTT ANALYST 7566 19-APR-87 3000 20

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

7902 FORD ANALYST 7566 03-DEC-81 3000 20

7934 MILLER CLERK 7782 23-JAN-82 1300 10

7. WAQ to display EMPNO, ENAME AND SALARY of the Employee?

 SQL> select empno, ename, sal from emp;

**OUTPUT:**

EMPNO ENAME SAL

---------- ---------- -------

7369 SMITH 800

7499 ALLEN 1600

7521 WARD 1250

7566 JONES 2975

7654 MARTIN 1250

7698 BLAKE 2850

|  |  |
| --- | --- |
| TITLE: DRL COMMANDS | DATE:PAGE NO: 07 |

7782 CLARK 2450

7788 SCOTT 3000

7839 KING 5000

7844 TURNER 1500

7876 ADAMS 1100

7900 JAMES 950

7902 FORD 3000

 7934 MILLER 1300

8. WAQ to display EMPNO, SAL, ENAME, ANNUAL SALARY of the Employee?

 SQL> select empno, sal, ename, sal\*12 from emp;

**OUTPUT:**

EMPNO SAL ENAME SAL\*12

---------- ------ ------------ ----------

7369 800 SMITH 9600

7499 1600 ALLEN 19200

7521 1250 WARD 15000

7566 2975 JONES 35700

7654 1250 MARTIN 15000

7698 2850 BLAKE 34200

7782 2450 CLARK 29400

7788 3000 SCOTT 36000

7839 5000 KING 60000

7844 1500 TURNER 18000

7876 1100 ADAMS 13200

7900 950 JAMES 11400

7902 3000 FORD 36000

7934 1300 MILLER 15600

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| TITLE: DRL COMMANDS | DATE:PAGE NO: 08 |

9. WAQ to display Increase the salary of Employees by 1000 Rs?

 SQL>select sal, sal+1000 from emp;

 OUTPUT:

SAL SAL+1000

---------- ----------

800 1800

1600 2600

1250 2250

2975 3975

1250 2250

2850 3850

2450 3450

3000 4000

5000 6000

1500 2500

1100 2100

950 1950

3000 4000

1300 2300

10. WAQ to display the Employees Working in DEPTNO 10?

 SQL> select \* from emp

 where deptno=10;

**OUTPUT:**

 EMPNO ENAME JOB MGR HIREDATE SAL COMM DEPTNO

 ---------- --------- --------- -------- --------- ---------- ---------- ----------- -----------

 7782 CLARK MANAGER 7839 09-JUN-81 2450 10

 7839 KING PRESIDENT 17-NOV-81 5000 10

 7934 MILLER CLERK 7782 23-JAN-82 1300 10

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| --- | --- |
| TITLE: DRL COMMANDS | DATE:PAGE NO: 09 |

11. WAQ to display Employees who’s salaries are >= 2000?

 SQL> select \* from emp

 where sal>=2000;

**OUTPUT:**

EMPNO ENAME JOB MGR HIREDATE SAL COMM DEPTNO

 ---------- ---------- ----------- ------ ---------------- ---------- ----- ------------

 7566 JONES MANAGER 7839 02-APR-81 2975 20

 7698 BLAKE MANAGER 7839 01-MAY-81 2850 30

 7782 CLARK MANAGER 7839 09-JUN-81 2450 10

 7788 SCOTT ANALYST 7566 19-APR-87 3000 20

 7839 KING PRESIDENT 17-NOV-81 5000 10

 7902 FORD ANALYST 7566 03-DEC-81 3000 20

12. WAQ to display EMPNO, ENAME of Employee working as ANALYST?

 SQL> select empno, ename from emp

 where job='ANALYST';

**OUTPUT:**

EMPNO ENAME

---------- ----------

7788 SCOTT

7902 FORD

|  |  |
| --- | --- |
| TITLE: SPECIAL OPERATORS  | DATE:PAGE NO: 10 |

13. WAQ to display Employees who’s EMPNO 7359 and working in DEPTNO 10?

 SQL> select \* from emp

 where empno=7359 and deptno=10;

 **OUTPUT:**

 No rows selected

14. WAQ to display Employees working in 10, 20 Department?

 SQL> select \* from emp

 where deptno=10 or deptno=20;

**OUTPUT:**

EMPNO ENAME JOB MGR HIREDATE SAL COMM DEPTNO

 ---------- ---------- --------- --------- --------- ---------- ------ ----------

 7369 SMITH CLERK 7902 17-DEC-80 800 20

 7566 JONES MANAGER 7839 02-APR-81 2975 20

 7782 CLARK MANAGER 7839 09-JUN-81 2450 10

 7788 SCOTT ANALYST 7566 19-APR-87 3000 20

 7839 KING PRESIDENT 17-NOV-81 5000 10

 7876 ADAMS CLERK 7788 23-MAY-87 1100 20

 7902 FORD ANALYST 7566 03-DEC-81 3000 20

 7934 MILLER CLERK 7782 23-JAN-82 1300 10

15. WAQ to display the details of only CLERK earning more than or equal to 11000?

 SQL> select \* from emp

 where job='CLERK' and sal>=11000;

 **OUTPUT:**

 No rows selected

16. WAQ to display all Clerk’s and 20th department Employee details?

 SQL> select \* from emp

 where job='CLERK' and deptno=20;

|  |  |
| --- | --- |
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 **OUTPUT:**

EMPNO ENAME JOB MGR HIREDATE SAL COMM DEPTNO

---------- ---------- --------- --------- --------------- ---------- ---------- ------------

 7369 SMITH CLERK 7902 17-DEC-80 800 20

 7876 ADAMS CLERK 7788 23-MAY-87 1100 20

17. WAQ to display all Clerk’s, Manager’s and Analyst data From Emp Table?

 SQL> select \* from emp

 where job='CLERK' or job='MANAGER' or job='ANALYST';

 **OUTPUT:**

 EMPNO ENAME JOB MGR HIREDATE SAL COMM DEPTNO

 ---------- ---------- --------- ---------- --------- ---------- ---------- --------- ------------ --------

 7369 SMITH CLERK 7902 17-DEC-80 800 20

 7566 JONES MANAGER 7839 02-APR-81 2975 20

 7698 BLAKE MANAGER 7839 01-MAY-81 2850 30

 7782 CLARK MANAGER 7839 09-JUN-81 2450 10

 7788 SCOTT ANALYST 7566 19-APR-87 3000 20

 7876 ADAMS CLERK 7788 23-MAY-87 1100 20

 7900 JAMES CLERK 7698 03-DEC-81 950 30

 7902 FORD ANALYST 7566 03-DEC-81 3000 20

 7934 MILLER CLERK 7782 23-JAN-82 1300 10

18. WAQ to display 7359, 7251, 7934 Employee details?

 SQL> select \* from emp

 where empno in (7359, 7251, 7934);

 **OUTPUT:**

 EMPNO ENAME JOB MGR HIREDATE SAL COMM DEPTNO

 ----------- ----------- ------ ------- --------------- ------ --------- -----------

 7934 MILLER CLERK 7782 23-JAN-82 1300 10

|  |  |
| --- | --- |
| TITLE: SPECIAL OPERATORS  | DATE:PAGE NO: 12 |

19. WAQ to display the employees who are not working in 20, 30 departments?

 SQL> select \* from emp

 where deptno not in (20, 30);

 **OUTPUT:**

 EMPNO ENAME JOB MGR HIREDATE SAL COMM DEPTNO

----- ---------- --------- ---------- --------- -------- -------- ----------

 7782 CLARK MANAGER 7839 09-JUN-81 2450 10

 7839 KING PRESIDENT 17-NOV-81 5000 10

 7934 MILLER CLERK 7782 23-JAN-82 1300 10

20. WAQ to display who are working as CLERK,ANALYST,MANAGER and not

 working in Deptno 10.

 SQL> select \* from emp

 where job in ('CLERK','ANALYST','MANAGER')

 and deptno not in (10);

 **OUTPUT:**

 EMPNO ENAME JOB MGR HIREDATE SAL COMM DEPTNO

 ---------- ---------- --------- ---------- --------- ---------- ---------- ----------

 7369 SMITH CLERK 7902 17-DEC-80 800 20

 7566 JONES MANAGER 7839 02-APR-81 2975 20

 7698 BLAKE MANAGER 7839 01-MAY-81 2850 30

 7788 SCOTT ANALYST 7566 19-APR-87 3000 20

 7876 ADAMS CLERK 7788 23-MAY-87 1100 20

 7900 JAMES CLERK 7698 03-DEC-81 950 30

 7902 FORD ANALYST 7566 03-DEC-81 3000 20

21. WAQ to display all employees’ data except SMITH, ALLEN, WARD?

 SQL> select \* from emp

 where ename not in ('SMITH','ALLEN','WARD');

|  |  |
| --- | --- |
| TITLE: SPECIAL OPERATORS  | DATE:PAGE NO: 13 |

**OUTPUT:**

EMPNO ENAME JOB MGR HIREDATE SAL COMM DEPTNO

------ ---------- --------- ---------- ---------------- ---------- ---------- ----------

 7566 JONES MANAGER 7839 02-APR-81 2975 20

 7654 MARTIN SALESMAN 7698 28-SEP-81 1250 1400 30

 7698 BLAKE MANAGER 7839 01-MAY-81 2850 30

 7782 CLARK MANAGER 7839 09-JUN-81 2450 10

 7788 SCOTT ANALYST 7566 19-APR-87 3000 20

 7839 KING PRESIDENT 17-NOV-81 5000 10

 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

 7902 FORD ANALYST 7566 03-DEC-81 3000 20

 7934 MILLER CLERK 7782 23-JAN-82 1300 10

22. WAQ to display all employees data if EMPNO >= 7500 and EMPNO <= 7900?

 SQL> select \* from emp

 where empno between 7500 and 7900;

 **OUTPUT:**

 EMPNO ENAME JOB MGR HIREDATE SAL COMM DEPTNO

 ------- ------ --------- -------- --------- ------- ---------- -------

 7521 WARD SALESMAN 7698 22-FEB-81 1250 500 30

 7566 JONES MANAGER 7839 02-APR-81 2975 20

 7654 MARTIN SALESMAN 7698 28-SEP-81 1250 1400 30

 7698 BLAKE MANAGER 7839 01-MAY-81 2850 30

 7782 CLARK MANAGER 7839 09-JUN-81 2450 10

 7788 SCOTT ANALYST 7566 19-APR-87 3000 20

 7839 KING PRESIDENT 17-NOV-81 5000 10

 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

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| --- | --- |
| TITLE: SPECIAL OPERATORS  | DATE:PAGE NO: 14 |

 23. WAQ to display employees who are working as CLERK and SALARY not between

 2000 and 3000 and working in DEPTNO 10?

 SQL> select \* from emp

 where job='CLERK' and sal not between 2000 and 3000

 and deptno=10;

 OUTPUT:

 EMPNO ENAME JOB MGR HIREDATE SAL COMM DEPTNO

---------- ---------- --------- ---------- --------- ---------- ---------- ----------

 7934 MILLER CLERK 7782 23-JAN-82 1300 10

24. WAQ to display all employee names begins with “A”?

 SQL> select \* from emp

 where ename like 'A%';

 **OUTPUT**

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 20

25. WAQ to display all employee names end’s with “S”?

 SQL> select \* from emp

 where ename like '%S';

 **OUTPUT**:

 EMPNO ENAME JOB MGR HIREDATE SAL COMM DEPTNO

 ---------- ---------- --------- -------- --------- - --------- ---------- ---------

 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 50 30

26. WAQ to display all employee names containing S as one of character?

 SQL> select \* from emp

 where ename like '%S%';

|  |  |
| --- | --- |
|  TITLE: SPECIAL OPERATORS  | DATE:PAGE NO: 15 |

**OUTPUT**:

EMPNO ENAME JOB MGR HIREDATE SAL COMM DEPTNO

---------- ---------- --------- ---------- --------- ---------- ---------- ----------

 7369 SMITH CLERK 7902 17-DEC-80 800 20

 7566 JONES MANAGER 7839 02-APR-81 2975 20

 7788 SCOTT ANALYST 7566 19-APR-87 3000 20

 7876 ADAMS CLERK 7788 23-MAY-87 1100 20

 7900 JAMES CLERK 7698 03-DEC-81 950 30

27. WAQ to display all employee names containing 5 characters?

 SQL> select \* from emp

 where ename like '\_\_\_\_\_';

 **OUTPUT**:

 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

 7566 JONES MANAGER 7839 02-APR-81 2975 20

 7698 BLAKE MANAGER 7839 01-MAY-81 2850 30

 7782 CLARK MANAGER 7839 09-JUN-81 2450 10

 7788 SCOTT ANALYST 7566 19-APR-87 3000 20

 7876 ADAMS CLERK 7788 23-MAY-87 1100 20

 7900 JAMES CLERK 7698 03-DEC-81 950 30

28. WAQ to display names contains L as 2nd character?

 SQL> select \* from emp

 where ename like '\_L%';

 **OUTPUT:**

EMPNO ENAME JOB MGR HIREDATE SAL COMM DEPTNO

---------- ---------- --------- --------- --------- ---------- ---------- ----------

 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

|  |  |
| --- | --- |
| TITLE: SPECIAL OPERATORS  | DATE:PAGE NO: 16 |

29. WAQ to display all employees who joined in Feb month?

 SQL> select \* from emp

 where hiredate like '%FEB%';

 **OUTPUT**:

 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

30. WAQ to display who joined in the year 82?

 SQL> select \* from emp

 where hiredate like '%82%';

 **OUTPUT**:

EMPNO ENAME JOB MGR HIREDATE SAL COMM DEPTNO

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 7934 MILLER CLERK 7782 23-JAN-82 1300 10

31. WAQ to display all the employees who joined in the 1st of any month?

 SQL> select \* from emp

 where hiredate like '%01%';

 **OUTPUT:**

 EMPNO ENAME JOB MGR HIREDATE SAL COMM DEPTNO

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 7698 BLAKE MANAGER 7839 01-MAY-81 2850 30

32. What is significance of the below query

 SQL > Select ENAME from emp where ENAME like ‘%\\_%’ escape ‘\’;

 SQL > Select ENAME from emp where ENAME like ‘%#\_%’ escape ‘#’;

 SQL > Select ENAME from emp where ENAME like ‘%A\_%’ escape ‘A’;

 Ans:It will display employee names who are having only underscores.

33. WAQ to display all the employees except the names begins with “S”?

 SQL> select \* from emp

 where ename not like 'S%';

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|  TITLE: SPECIAL OPERATORS  | DATE:PAGE NO: 17 |

 **OUTPUT**:

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

 7566 JONES MANAGER 7839 02-APR-81 2975 20

 7654 MARTIN SALESMAN 7698 28-SEP-81 1250 1400 30

 7698 BLAKE MANAGER 7839 01-MAY-81 2850 30

 7782 CLARK MANAGER 7839 09-JUN-81 2450 10

 7839 KING PRESIDENT 17-NOV-81 5000 10

 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

 7902 FORD ANALYST 7566 03-DEC-81 3000 20

 7934 MILLER CLERK 7782 23-JAN-82 1300 10

34. WAQ to display employees whose names doesn’t contain 2nd character “A”?

 SQL> select \* from emp

 where ename not like '\_A%';

 **OUTPUT**:

 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

 7566 JONES MANAGER 7839 02-APR-81 2975 20

 7698 BLAKE MANAGER 7839 01-MAY-81 2850 30

 7782 CLARK MANAGER 7839 09-JUN-81 2450 10

 7788 SCOTT ANALYST 7566 19-APR-87 3000 20

 7839 KING PRESIDENT 17-NOV-81 5000 10

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

 7876 ADAMS CLERK 7788 23-MAY-87 1100 20

 7902 FORD ANALYST 7566 03-DEC-81 3000 20

 7934 MILLER CLERK 7782 23-JAN-82 1300 10

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| TITLE: SPECIAL OPERATORS  | DATE:PAGE NO: 18 |

35. WAQ to display employees whose job start with A and end’s D and name contains 4

 Characters ?

 SQL:>select \* from employee

 where job like ‘A%D’ and ename like ‘----‘;

 **OUTPUT:**

 No rows selected.

36. WAQ to display who are working as CLERK and working in DEPTNO 10 and name

 Contains two continuous E’s?

 SQL> select \* from emp

 where job='CLERK' and deptno=10 and ename like '%EE%';

 **OUTPUT:**

 No rows selected

37. WAQ to display who’s name’s contains atleast 3 character’s and working in

 DEPTNO 10,20,30 and working as ANALYST,MANAGER and salaries not b/w

 3000 and 10000?

 SQL> select \* from emp

 where ename like '\_\_\_%' and deptno in(10,20,30)

 and job in ('ANALYST','MANAGER') and sal not between 3000 and 10000;

 **OUTPUT**:

 EMPNO ENAME JOB MGR HIREDATE SAL COMM DEPTNO

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 7566 JONES MANAGER 7839 02-APR-81 2975 20

 7698 BLAKE MANAGER 7839 01-MAY-81 2850 30

 7782 CLARK MANAGER 7839 09-JUN-81 2450 10

38. WAQ to display who’s joined in year 07?

 SQL> select \* from emp

 where hiredate like'%07%';

 **OUTPUT**:

 No rows selected

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| TITLE: SPECIAL OPERATORS  | DATE:PAGE NO: 19 |

39. WAQ to display all the employees who will not have any reporting manager?

 SQL:>select ename,mgr from emp

 where mgr is null;

 **OUTPUT:**

 ENAME MGR

 ---------- ----------

 KING

40. WAQ to display employees whose salaries are NOT NULL?

 SQL> select \* from emp

 where sal is not null;

 **OUTPUT:**

 EMPNO ENAME JOB MGR HIREDATE SAL COMM DEPTNO

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 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

 7566 JONES MANAGER 7839 02-APR-81 2975 20

 7654 MARTIN SALESMAN 7698 28-SEP-81 1250 1400 30

 7698 BLAKE MANAGER 7839 01-MAY-81 2850 30

 7782 CLARK MANAGER 7839 09-JUN-81 2450 10

 7788 SCOTT ANALYST 7566 19-APR-87 3000 20

 7839 KING PRESIDENT 17-NOV-81 5000 10

 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

 7902 FORD ANALYST 7566 03-DEC-81 3000 20

 7934 MILLER CLERK 7782 23-JAN-82 1300 10

41. WAQ to display employees who are not working as MANAGER and working in 20,

 30 Departments and SALARY b/w 5000 and 10000 and name does not start with ‘M’?

 SQL> select \* from emp

 where job not in ('MANAGER')

 and deptno in (20) and sal between 5000 and 10000

 and ename not like 'M%';

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|  TITLE: SPECIAL OPERATORS  | DATE:PAGE NO: 20 |

**OUTPUT:**

 No rows selected

42. How to create Table from existing table with records and without records?

 **With Records**:

 SQL:>create table dept1 as select \* from dept;

 SQL:>select \* from dept1;

 **Without Records:**

 SQL:>create table dept2 as select \* from dept where 1=10;

43. WAQ to find HRA, DA, PF for all employees in employee table by taking SALARY

 as basic?

 SQL:>select empno,sal as basic,sal\*0.35 HRA,sal\*0.25 DA,sal\*0.15 PF from emp;

 **OUTPUT:**

 EMPNO BASIC HRA DA PF

------ ------- --- ---- ------ ---------

 7369 800 280 200 120

 7499 1600 560 400 240

 7521 1250 437.5 312.5 187 .5

 7566 2975 1041.25 743.75 446.25

 7654 1250 437.5 312.5 187.5

 7698 2850 997.5 712.5 427.5

 7782 2450 857.5 612.5 367 .5

 7788 3000 1050 750 450

 7839 5000 1750 1250 750

 7844 1500 525 375 225

 7876 1100 385 275 165

 7900 950 332.5 237.5 142.5

 7902 3000 1050 750 450

 7934 1300 455 325 195

|  |  |
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| TITLE: DISTINCT & ORDER BY CALUSE | DATE:PAGE NO: 21 |

44. WAQ to display all the jobs in employee table?

 SQL> select distinct job from emp;

**OUTPUT:**

 JOB

 ------

ANALYST

CLERK

MANAGER

PRESIDENT

SALESMAN

45. WAQ to display all the DEPTNOs in employee table?

 SQL> select distinct deptno from emp;

 **OUTPUT:**

 DEPTNO

 ----------

 10

 20

 30

46. WAQ to display DEPTNO and JOBs from employee table?

 SQL> select distinct deptno, job from emp;

 **OUTPUT:**

 DEPTNO JOB

 ---------- ---------

 10 CLERK

 10 MANAGER

 10 PRESIDENT

 20 ANALYST

 20 CLERK

|  |  |
| --- | --- |
| TITLE: DISTINCT & ORDER BY CALUSE | DATE:PAGE NO: 22 |

 20 MANAGER

 30 CLERK

 30 MANAGER

 30 SALESMAN

47. WAQ to display employees the order of their salaries?

 SQL> select \* from emp order by sal asc;

 **OUTPUT**:

 EMPNO ENAME JOB MGR HIREDATE SAL COMM DEPTNO

---------- ---------- --------- ---------- --------- ---------- ---------- ---------------------------------

 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

 7521 WARD SALESMAN 7698 22-FEB-81 1250 500 30

 7654 MARTIN SALESMAN 7698 28-SEP-81 1250 1400 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

 7788 SCOTT ANALYST 7566 19-APR-87 3000 20

 7902 FORD ANALYST 7566 03-DEC-81 3000 20

 7839 KING PRESIDENT 17-NOV-81 5000 10

|  |  |
| --- | --- |
| TITLE: DISTINCT & ORDER BY CALUSE | DATE:PAGE NO: 23 |

48. WAQ to display employees in the descending of their DEPTNO?

 SQL> select \* from emp order by deptno desc;

 **OUTPUT:**

 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

 7900 JAMES CLERK 7698 03-DEC-81 950 30

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

 7698 BLAKE MANAGER 7839 01-MAY-81 2850 30

 7369 SMITH CLERK 7902 17-DEC-80 800 20

 7902 FORD ANALYST 7566 03-DEC-81 3000 20

 7876 ADAMS CLERK 7788 23-MAY-87 1100 20

 7566 JONES MANAGER 7839 02-APR-81 2975 20

 7788 SCOTT ANALYST 7566 19-APR-87 3000 20

 7782 CLARK MANAGER 7839 09-JUN-81 2450 10

 7839 KING PRESIDENT 17-NOV-81 5000 10

 7934 MILLER CLERK 7782 23-JAN-82 1300 10

49. WAQ to display employees working in DEPTNO 10 in the order of their jobs in

 descending order?

 SQL> select \* from emp

 where deptno=10 order by job desc;

 **OUTPUT**:

EMPNO ENAME JOB MGR HIREDATE SAL COMM DEPTNO

---------- ---------- --------- ---------- ------------- ---------- ---------- ----------

 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

|  |  |
| --- | --- |
| TITLE: DISTINCT & ORDER BY CALUSE | DATE:PAGE NO: 24 |

50. WAQ to display employees in ascending order of DEPTNO and descending order of

 jobs?

 SQL> select \* from emp order by deptno asc, job desc;

 **OUTPUT:**

 EMPNO ENAME JOB MGR HIREDATE SAL COMM DEPTNO

---------- ---------- --------- -------- ------------- -------- ---------- -----

 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

 7566 JONES MANAGER 7839 02-APR-81 2975 20

 7369 SMITH CLERK 7902 17-DEC-80 800 20

 7876 ADAMS CLERK 7788 23-MAY-87 1100 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

 7654 MARTIN SALESMAN 7698 28-SEP-81 1250 1400 30

 7521 WARD SALESMAN 7698 22-FEB-81 1250 500 30

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

 7698 BLAKE MANAGER 7839 01-MAY-81 2850 30

 7900 JAMES CLERK 7698 03-DEC-81 950 30

51. WAQ to display who are working as MANAGER in the descending order of their

 DEPTNO and names?

SQL> select \* from emp

 where job='MANAGER' order by deptno desc, ename desc;

**OUTPUT**:

EMPNO ENAME JOB MGR HIREDATE SAL COMM DEPTNO

---------- ---------- --------- ---------- --------- ---------- ---------- ----------

 7698 BLAKE MANAGER 7839 01-MAY-81 2850 30

 7566 JONES MANAGER 7839 02-APR-81 2975 20

 7782 CLARK MANAGER 7839 09-JUN-81 2450 10

|  |  |
| --- | --- |
| TITLE: DISTINCT & ORDER BY CALUSE | DATE:PAGE NO: 25 |

52. WAQ to display all ANALYST data in descending order of Hiredate?

 SQL> select \* from emp

 where job='ANALYST' order by hiredate desc;

 **OUTPUT**:

 EMPNO ENAME JOB MGR HIREDATE SAL COMM DEPTNO

 ---------- ---------- --------- ---------- --------- ---------- ---------- ----------

 7788 SCOTT ANALYST 7566 19-APR-87 3000 20

 7902 FORD ANALYST 7566 03-DEC-81 3000 20

53. WAQ to display all names in descending order?

 SQL:> select ename form emp

 where order by ename desc;

 **OUTPUT:**

 ENAME

 -------

 WARD

 TURNER

 SMITH

 SCOTT

 MILLER

 MARTIN

 KING

 JONES

 JAMES

 FORD

 CLARK

 BLAKE

 ALLEN

 ADAMS

|  |  |
| --- | --- |
| TITLE: CHARACTER ROW FUNCTION | DATE:PAGE NO: 26 |

54\*. Give output of the following SQL commands

SQL> Select upper (‘oracle’) from dual;

 **OUTPUT**

 UPPER (‘oracle’)

 ---------------------

 ORACLE

SQL> Select lower (‘ORACLE’) from dual;

 **OUTPUT**

 LOWER (‘ORACLE’)

 - - -----------------------

 oracle

SQL> Select ENAME, lower (ename) from emp;

 **OUTPUT**

ENAME LOWER (ENAME)

---------- ----------------------

SMITH smith

ALLEN allen

WARD ward

JONES jones

MARTIN martin

BLAKE blake

CLARK clark

SCOTT scott

KING king

TURNER turner

ADAMS adams

JAMES james

FORD ford

MILLER miller

|  |  |
| --- | --- |
| TITLE: CHARACTER ROW FUNCTION | DATE:PAGE NO: 27 |

SQL> Select lower (ename), upper (ename) from emp

 where job = ‘MANAGER’;

 **OUTPUT**

LOWER (ENAME) UPPER (ENAME)

---------- -----------------------

Jones JONES

blake BLAKE

clark CLARK

SQL> Select ENAME, JOB from emp

 where JOB = upper (‘manager’);

 **OUTPUT**

ENAME JOB

---------- -----------

JONES MANAGER

BLAKE MANAGER

CLARK MANAGER

SQL> Select ENAME, JOB, SAL, SAL \* 12 from emp

 where JOB = upper (lower (‘MANAGER’));

 **OUTPUT**

ENAME JOB SAL SAL\*12

---------- --------- ---------- ----------

JONES MANAGER 2975 35700

BLAKE MANAGER 2850 34200

CLARK MANAGER 2450 29400

SQL> Select EMPNO, initcap (ename), DEPTNO from emp

 where ENAME = upper(‘blake’);

  **OUTPUT**

EMPNO INITCAP (ENAME) DEPTNO

--------- --------- ----------

 7698 Blake 30

|  |  |
| --- | --- |
|  TITLE: CHARACTER ROW FUNCTION | DATE:PAGE NO: 28 |

SQL> Select reverse (ename) from emp;

 **OUTPUT**

REVERSE (ENAME)

--------------------------

HTIMS

NELLA

DRAW

SENOJ

NITRAM

EKALB

KRALC

TTOCS

GNIK

RENRUT

SMADA

SEMAJ

DROF

RELLIM

SQL> Select lpad (‘ramana’, 10,\*) from dual;

 **OUTPUT**

LPAD('RAMANA’,10,\*)

------------------------------

\*\*\*\*ramana

SQL) Select lpad (‘ram’, 10) from dual;

 **OUTPUT**

LPAD (‘ram’, 10)

----------------------

 Ram

|  |  |
| --- | --- |
| TITLE: CHARACTER ROW FUNCTION | DATE:PAGE NO: 29 |

SQL>Select EMPNO, SAL, lpad (sal, 10,’#’) from emp;

 **OUTPUT**

 EMPNO SAL LPAD (SAL, 10.’#’)

 --------- ---------- -----------------

 7369 800 #######800

 7499 1600 ######1600

 7521 1250 ######1250

 7566 2975 ######2975

 7654 1250 ######1250

 7698 2850 ######2850

 7782 2450 ######2450

 7788 3000 ######3000

 7839 5000 ######5000

 7844 1500 ######1500

 7876 1100 ######1100

 7900 950 #######950

 7902 3000 ######3000

 7934 1300 ######1300

 SQL> Select EMPNO, SAL, rpad (sal, 10,’#’) from emp;

 **OUTPUT**

 EMPNO SAL RPAD (SAL, 10,’#’)

 ---------- ---------- ----------

 7369 800 800#######

 7499 1600 1600######

 7521 1250 1250######

 7566 2975 2975######

 7654 1250 1250######

 7698 2850 2850######

 7782 2450 2450######

 7788 3000 3000######

|  |  |
| --- | --- |
| TITLE: CHARACTER ROW FUNCTION | DATE:PAGE NO: 30 |

 7839 5000 5000######

 7844 1500 1500######

 7876 1100 1100######

 7900 950 950#######

 7902 3000 3000######

 7934 1300 1300######

SQL> Select ltrim (‘xyzXxylastword’, ’xy’) from dual;

 **OUTPUT**

LTRIM (‘xyzXxylastword’, ’xy’)

-----------------------------------------

zXylastword

SQL> Select ltrim (‘xyyyyxyzxyy’,’xy’) from dual;

 **OUTPUT**

LTRI(‘xyyyyxyzxyy’,’xy’)

-------------------------------------

zxyy

SQL> Select rtrim(‘xyyyyxyzxyy’,’xy’) from dual;

 **OUTPUT:**

RTRIM (‘xyyyyxyzxyy’,’xy’)

----------------------------------------

xyyyyxyz

SQL> Select rtrim(ltrim(‘xxxxx ramana zzzzz’,’x’),’z’) from dual;

 **OUTPUT:**

 RTRIM (ltrim(‘xxxxx ramana zzzzz’,’x’),’z’)

 ------------------------------------------------------

 ramana

|  |  |
| --- | --- |
| TITLE: CHARACTER ROW FUNCTION | DATE:PAGE NO: 31 |

SQL> Select trim (‘s’ from ‘MITHSS’) from dual;

 **OUTPUT:**

TRIM (‘s’ from ‘MITHSS’)

-------------------------------------

MITHSS

SQL> Select trim (‘s’ from ‘SSMITH’) from dual;

 **OUTPUT:**

TRIM (‘s’ from ‘SSMITH’)

--------------------------------

SSMITH

SQL> Select trim (‘s’ from ‘SSMITHSS’) from dual;

 **OUTPUT:**

TRIM ('S' from ‘SSMITHSS’)

---------------------------------------

SSMITHSS

SQL> Select trim (trailing ‘S’ from ‘SSMITHSS’) from dual;

 **OUTPUT:**

TRIM (trailing ‘S’ from ‘SSMITHSS’)

-------------------------------------------------

SSMITH

SQL> Select trim (leading ‘S’ from ‘SSMITHS’) from dual;

 **OUTPUT:**

TRIM (leading ‘S’ from ‘SSMITHS’)

-----------------------------------------------

MITHSS

|  |  |
| --- | --- |
| TITLE: CHARACTER ROW FUNCTION | DATE:PAGE NO: 32 |

SQL> Select trim (both ‘S’ from ‘SSMITHSS’) from dual;

 **OUTPUT:**

TRIM(both ‘S’ from ‘SSMITHSS’)

-------------------------------------------

MITH

SQL> Select concat (ENAME, SAL) from emp;

 **OUTPUT:**

CONCAT (ENAME,SAL)

-----------------------------

SMITH800

ALLEN1600

WARD1250

JONES2975

MARTIN1250

BLAKE2850

CLARK2450

SCOTT3000

KING5000

TURNER1500

ADAMS1100

JAMES950

FORD3000

MILLER1300

|  |  |
| --- | --- |
| TITLE: CHARACTER ROW FUNCTION | DATE:PAGE NO: 33 |

SQL> Select concat (concat (ename, sal), comm.) from emp;

 **OUTPUT:**

CONCAT (CONCAT (ENAME, SAL), COMM)

--------------------------------------------------------

SMITH800

ALLEN1600300

WARD1250500

JONES2975

MARTIN12501400

BLAKE2850

CLARK2450

SCOTT3000

KING5000

TURNER15000

ADAMS1100

JAMES950

FORD3000

MILLER1300

SQL> Select substr (‘abcdefgh’, 3, 4) from dual;

 **OUTPUT:**

substr (‘abcdefgh’, 3, 4)

----------------------

cdef

SQL> Select substr (‘abcdefgh’, -5, 4) from dual;

 **OUTPUT:**

substr (‘abcdefgh’, -5, 4)

-----------------------------------

defg

|  |  |
| --- | --- |
| TITLE: CHARACTER ROW FUNCTION | DATE:PAGE NO: 34 |

SQL> Select substr (‘abcdefgh’, 0, 4) from dual;

 **OUTPUT:**

substr (‘abcdefgh’, 0, 4)

-------------------------------

abcd

SQL> Select substr (‘abcdefgh’, 4) from dual;

 **OUTPUT:**

substr (‘abcdefgh’, 4)

------------------------------

defgh

SQL> Select substr (‘abcdefgh’, 4, 0) from dual;

 **OUTPUT:**

 NULL

SQL> Select substr (‘abcdefgh’, 4,-2) from dual;

 **OUTPUT:**

 NULL

SQL> Select ename, job from emp

 where substr(job,4,3)=upper(‘age’);

 **OUTPUT:**

ENAME JOB

---------- ---------

JONES MANAGER

BLAKE MANAGER

CLARK MANAGER

|  |  |
| --- | --- |
| TITLE: CHARACTER ROW FUNCTION | DATE:PAGE NO: 35 |

SQL> Select concat(initcap(ename), concat(‘is a’, concat(initcap(substr(job,1,3)),

 ’eater’))) from emp

 where substr(job,4,3)=upper(‘age’);

 **OUTPUT:**

CONCAT(INITCAP(ENAME)

-------------------------------------

Jonesis aManeater

Blakeis aManeater

Clarkis aManeater

SQL> Select substr(’12-aug-05’,4,3) from dual;

 **OUTPUT:**

substr(’12-aug-05’,4,3)

-----------------------------

Aug

SQL> Select hiredate,substr(hiredate,4,3) from emp;

 **OUTPUT:**

HIREDATE SUBSTR(HIREDATE,4,3)

-------------- --------------------------------

17-DEC-80 DEC

20-FEB-81 FEB

22-FEB-81 FEB

02-APR-81 APR

28-SEP-81 SEP

01-MAY-81 MAY

09-JUN-81 JUN

19-APR-87 APR

17-NOV-81 NOV

08-SEP-81 SEP

23-MAY-87 MAY

03-DEC-81 DEC

03-DEC-81 DEC

|  |  |
| --- | --- |
| TITLE: CHARACTER ROW FUNCTION | DATE:PAGE NO: 36 |

SQL> Select ename, substr(ename, 4) from emp;

 **OUTPUT:**

ENAME SUBSTR (ENAME,4)

---------- ----------

SMITH SMITH

ALLEN ALLEN

WARD WARD

JONES JONES

MARTIN MARTIN

BLAKE BLAKE

CLARK CLARK

SCOTT SCOTT

KING KING

TURNER TURNER

ADAMS ADAMS

JAMES JAMES

FORD FORD

MILLER MILLER

55. WAQ to display the last three character of each name.

 SQL> select ename, substr(ename,-3) from emp;

 **OUTPUT:**

 ENAME SUBSTR(ENAME,-3)

 ---------- --------------------------

SMITH ITH

ALLEN LEN

WARD ARD

JONES NES

MARTIN TIN

|  |  |
| --- | --- |
| TITLE: CHARACTER ROW FUNCTION | DATE:PAGE NO: 37 |

BLAKE AKE

CLARK ARK

SCOTT OTT

KING ING

TURNER NER

ADAMS AMS

JAMES MES

FORD ORD

MILLER LER

56. WAQ to display the employees whose name starts with ‘A’ using ‘substr’ function.

 SQL> select ename from emp

 where substr(ename,1,1)=upper('a');

 **OUTPUT:**

ENAME

----------

ALLEN

ADAMS

57. WAQ to display the employees who joined the company in January.

 SQL> select \* from emp

 where substr(hiredate,4,3)='JAN';

 **OUTPUT:**

EMPNO ENAME JOB MGR HIREDATE SAL COMM DEPTNO

---------- ---------- --------- ---------- --------- ---------- ---------- ----------

 7934 MILLER CLERK 7782 23-JAN-82 1300 10

58. Give output of the following SQL commands

 SQL> Select translate (‘aszop’,’zp’,’hk’) from dual;

 **OUTPUT:**

translate (‘aszop’,’zp’,’hk’)

-------------------------------------

ashok

|  |  |
| --- | --- |
| TITLE: CHARACTER ROW FUNCTION | DATE:PAGE NO: 38 |

 SQL> Select translate (‘pzaszopzp’,’zp’,’hk’) from dual;

 **OUTPUT:**

translate (‘pzaszopzp’,’zp’,’hk’)

------------------------------------------

khashokhk

 SQL> Select translate (‘ganesh’,’gn’,’mhesh’) from dual;

 **OUTPUT:**

translate (‘ganesh’,’gn’,’mhesh’)

-----------------------------------------

mahesh

 SQL> Select translate (‘ganesh’,’gan’,’r’) from dual;

 **OUTPUT:**

 translate (‘ganesh’,’gan’,’r’)

 ----------------------------------

 resh

 SQL> Select job, translate (job,’MN’,’DM’) from emp

 where job=’MANAGER’;

 **OUTPUT:**

JOB TRANSLATE

--------- ---------------

MANAGER DAMAGER

MANAGER DAMAGER

MANAGER DAMAGER

SQL> Select job, translate (job,’A’,’d’) from emp

 where job=’SALESMAN’;

|  |  |
| --- | --- |
| TITLE: CHARACTER ROW FUNCTION | DATE:PAGE NO: 39 |

 **OUTPUT:**

JOB TRANSLATE

--------- -------------------

SALESMAN SdLESMdN

SALESMAN SdLESMdN

SALESMAN SdLESMdN

SALESMAN SdLESMdN

SQL> Select replace (‘paruchuru v ramana’,’paruchuru v’,’pv’) from dual;

 **OUTPUT:**

replace (‘paruchuru v ramana’,’paruchuru v’,’pv’)

--------------------------------------------------------------

pv ramana

SQL> Select replace (‘ganesh’,’g’,’mahesh’) from dual;

 **OUTPUT:**

replace (‘ganesh’,’g’,’mahesh’)

-------------------------------------------

maheshanesh

SQL> Select replace (‘ganesh’,’ganes’,’g’) from dual;

 **OUTPUT:**

replace (‘ganesh’,’ganes’,’g’)

-----------------------------------------

gh

SQL> Select replace (‘ganesh’,’g’,’m’) from dual;

 **OUTPUT:**

replace (‘ganesh’,’g’,’m’)

-----------------------------------

Manesh

|  |  |
| --- | --- |
| TITLE: CHARACTER ROW FUNCTION | DATE:PAGE NO: 40 |

SQL> Select replace (‘ganesh’,’g’) from dual;

 **OUTPUT:**

replace (‘ganesh’,’g’)

---------------------------

anesh

SQL> Select ename, replace (job, ‘MAN’,’DAM’) from emp

 where job=’MANAGER’;

 **OUTPUT:**

ENAME REPLACE (JOB,'MAN','DAM')

---------- ---------------------------

JONES DAMAGER

BLAKE DAMAGER

CLARK DAMAGER

SQL> Select ename, replace (job, ‘p’) from emp

 where job=’PRESIDENT;

 **OUTPUT:**

AME replace (job, ‘p’)

-------- ---------

NG RESIDENT

SQL> Select instr(‘corporate floor’,’or’, 3, 2) from dual;

 **OUTPUT:**

INSTR ('CORPORATEFLOOR','OR', 3, 2)

--------------------------------

 14

|  |  |
| --- | --- |
| TITLE: CHARACTER ROW FUNCTION | DATE:PAGE NO: 41 |

SQL> Select instr(‘string’,’r’) from dual;

 **OUTPUT:**

INSTR ('STRING','R')

-------------------

 3

SQL> Select instr (‘corporate floor’,’or’, -3, 2) from dual;

 **OUTPUT:**

INSTR ('CORPORATEFLOOR','OR',-3, 2)

---------------------------------

 2

SQL> Select job, instr (job,’a’, 2) from emp where job=’MANAGER’;

 **OUTPUT:**

JOB INSTR (JOB,'A', 2)

--------- ----------------

MANAGER 2

MANAGER 2

MANAGER 2

SQL> Select job, instr(job,’a’,3,2) from emp where job=’MANAGER’;

 **OUTPUT:**

JOB INSTR (JOB,'A',3, 2)

--------- ------------------

MANAGER 0

MANAGER 0

MANAGER 0

SQL> Select job, instr(job,’a’,1,2) from emp where job=’MANAGER’;

|  |  |
| --- | --- |
|  TITLE: CHARACTER ROW FUNCTION | DATE:PAGE NO: 42 |

  **OUTPUT:**

JOB INSTR (JOB,'A', 1, 2)

--------- ------------------

MANAGER 4

MANAGER 4

MANAGER 4

SQL> Select job, instr(job,’a’,2,2) from emp where job=’MANAGER’;

 **OUTPUT:**

JOB INSTR (JOB, 'A', 2, 2)

--------- ------------------

MANAGER 4

MANAGER 4

MANAGER 4

SQL> Select hiredate, instr(hiredate, ‘-‘, 1, 1) from emp;

 **OUTPUT:**

HIREDATE INSTR (HIREDATE,'-', 1, 1)

--------- -----------------------

17-DEC-80 3

20-FEB-81 3

22-FEB-81 3

02-APR-81 3

28-SEP-81 3

01-MAY-81 3

09-JUN-81 3

19-APR-87 3

17-NOV-81 3

08-SEP-81 3

|  |  |
| --- | --- |
| TITLE: CHARACTER ROW FUNCTION | DATE:PAGE NO: 43 |

23-MAY-87 3

03-DEC-81 3

03-DEC-81 3

3-JAN-82 3

59. WAQ to display employees whose name starts with ‘A’ using ‘instr’ function.

 SQL:> select ename from emp

 where instr(ename,’A’,1,1)=1;

 **OUTPUT:**

ENAME

---------

ALLEN

ADAMS

60. Give output of the following SQL commands

 SQL> Select ename, length (ename) from emp;

 **OUTPUT:**

 ENAME LENGTH (ENAME)

---------- -----------------------

SMITH 5

ALLEN 5

WARD 4

JONES 5

MARTIN 6

BLAKE 5

CLARK 5

SCOTT 5

KING 4

TURNER 6

ADAMS 5

JAMES 5

FORD 4

|  |  |
| --- | --- |
| TITLE: CHARACTER ROW FUNCTION | DATE:PAGE NO: 44 |

SQL> Select length (‘123’) from dual;

 **OUTPUT:**

LENGTH ('123')

-------------

 3

SQL> Select length (+123) from dual;

 **OUTPUT:**

LENGTH ('+123')

--------------

 3

SQL> Select length (-123) from dual;

 **OUTPUT:**

LENGTH ('-123')

--------------

 4

SQL> Select length (‘ramana pv’) from dual;

 **OUTPUT:**

LENGTH ('RAMANAPV')

------------------

 9

SQL> Select initcap (ename), job from emp where length (job)=7;

 **OUTPUT:**

INITCAP (ENAME) JOB

---------- ---------

Jones MANAGER

Blake MANAGER

Clark MANAGER

Scott ANALYST

Ford ANALYST

|  |  |
| --- | --- |
| TITLE: CHARACTER ROW FUNCTION | DATE:PAGE NO: 45 |

SQL> Select initcap (ename), job from emp where substr(job, 4, length(substr(job,4,3)))=’AGE’;

 **OUTPUT:**

INITCAP (ENME) JOB

---------- ---------

Jones MANAGER

Blake MANAGER

Clark MANAGER

SQL> Select char (67) from dual;

 **OUTPUT:**

char (67)

-----------

C

SQL> Select ascii(‘a’), ascii(‘Apple’) from dual;

 **OUTPUT:**

ASCII ('A') ASCII ('APPLE')

---------- --------------

 97 97

61. WAQ to display employees name whose name starts with ‘A’ using ‘ascii’ function.

 SQL> select ename from emp

 where ascii (ename) = 65 ;

 **OUTPUT:**

 ENAME

 ---------

 ALLEN

 ADAMS

|  |  |
| --- | --- |
|  TITLE: NUMERIC ROW FUNCTIONS | DATE:PAGE NO: 46 |

62\*. Give output of the following SQL commands

 SQL> Select round (5.435) from dual;

**OUTPUT:**

ROUND (5.435)

------------

 5

 SQL> Select round (8.7321) from dual;

 **OUTPUT:**

ROUND (8.7321)

-------------

 9

 SQL> Select round (15193.1576, 2) from dual;

 **OUTPUT:**

ROUND (15193.1576, 2)

-------------------

 15193.16

 SQL> Select round (15193.15523, 2) from dual;

 **OUTPUT:**

ROUND (15193.1576, 2)

-------------------

 15193.16

 SQL> Select round (15193.15422, 2) from dual;

 **OUTPUT:**

ROUND (15193.15422, 2)

--------------------

 15193.15

|  |  |
| --- | --- |
| TITLE: NUMERIC ROW FUNCTIONS | DATE:PAGE NO: 47 |

SQL> Select round (15193.2345789, 4) from dual;

**OUTPUT:**

ROUND (15193.2345789, 4)

----------------------

 15193.2346

SQL> Select round (15193.12345, -2) from dual;

**OUTPUT:**

ROUND (15193.12345, -2)

---------------------

 15200

SQL> Select round (15132421.12345, -4) from dual;

**OUTPUT:**

ROUND (15132421.12345, -4)

------------------------

 15130000

SQL> Select round (15023.12345,-4) from dual;

**OUTPUT:**

ROUND (15023.12345,-4)

---------------------

 20000

SQL> Select round (15023.12345, -5) from dual;

**OUTPUT:**

ROUND (15023.12345, -5)

---------------------

 0

|  |  |
| --- | --- |
| TITLE: NUMERIC ROW FUNCTIONS | DATE:PAGE NO: 48 |

SQL> Select round (4.1569, -1) from dual;

**OUTPUT:**

ROUND (4.1569, -1)

----------------

 0

SQL> Select round (5.1769, -1) from dual;

**OUTPUT:**

ROUND (5.1569, -1)

----------------

 10

SQL> Select round (14.7691, -1) from dual;

**OUTPUT:**

ROUND (14.7691,-1)

-----------------

 10

SQL> Select round (45.923, 0) from dual;

**OUTPUT:**

ROUND (45.923, 0)

---------------

 46

SQL> Select round (9.7615), trunc (9.7615) from dual;

 **OUTPUT:**

ROUND (9.7615) TRUNC (9.7615)

------------- -------------

 10 9

|  |  |
| --- | --- |
| TITLE: NUMERIC ROW FUNCTIONS | DATE:PAGE NO: 49 |

SQL> Select trunc (15.791, 1) from dual;

 **OUTPUT:**

TRUNC (15.791, 1)

---------------

 15.7

SQL> Select trunc (15.791, -1) from dual;

**OUTPUT:**

TRUNC (15.791, -1)

----------------

 10

SQL> Select trunc (45.923,2) from dual;

**OUTPUT:**

TRUNC (45.923,2)

---------------

 45.92

SQL> Select trunc (42.923) from dual;

**OUTPUT:**

TRUNC (42.923)

-------------

 42

SQL> Select mod (10, 3) from dual;

**OUTPUT:**

MOD (10,3)

----------

 1

|  |  |
| --- | --- |
| TITLE: NUMERIC ROW FUNCTIONS | DATE:PAGE NO: 50 |

SQL> Select abs (-5.8) from dual;

**OUTPUT:**

 ABS (-5.8)

----------

 5.8

SQL> Select sqrt (25) from dual;

**OUTPUT:**

 SQRT (25)

----------

 5

SQL> Select sign (25), sign (-10), sign (-5+5) from dual;

 **OUTPUT:**

SIGN (25) SIGN (-10) SIGN (-5+5)

---------- ---------- ----------

 1 -1 0

SQL> Select exp (2) from dual;

 **OUTPUT:**

 EXP (2)

----------

 7.3890561

SQL> Select ceil (5.5), ceil (14.27), ceil (14) from dual;

**OUTPUT:**

CEIL (5.5) CEIL (14.27) CEIL (14)

---------- ----------- ----------

 6 15 14

|  |  |
| --- | --- |
| TITLE: NUMERIC ROW FUNCTIONS | DATE:PAGE NO: 51 |

SQL> Select floor (15.7), floor (14.2), floor (14) from dual;

**OUTPUT:**

FLOOR (15.7) FLOOR (14.2) FLOOR (14)

 ----------- ----------- ----------

 15 14 14

SQL> Select sal, comm., sal-comm, abs (sal-comm) from emp;

 **OUTPUT:**

 SAL COMM SAL-COMM ABS (SAL-COMM)

 ---------- ---------- -------------- -------------

 800

 1600 300 1300 1300

 1250 500 750 750

 2975

 1250 1400 -150 150

 2850

 2450

 3000

 5000

 1500 0 1500 1500

 1100

 950

 3000

 1300

SQL> Select sal, comm., sign (sal-comm) from emp

 where sign (sal-comm)=-1;

 **OUTPUT:**

 SAL COMM SIGN (SAL-COMM)

---------- ---------- --------------

 1250 1400 -1

|  |  |
| --- | --- |
| TITLE: DATE ROW FUNCTIONS | DATE:PAGE NO: 52 |

63\*. WAQ to display the system date

 SQL> select sysdate from dual;

**OUTPUT:**

SYSDATE

---------

01-FEB-10

64. Give output of the following SQL commands

 SQL> Select sysdate, sysdate+1 from dual;

**OUTPUT:**

SYSDATE SYSDATE+1

--------- ---------

01-FEB-10 02-FEB-10

SQL> Select ename, hiredate, hiredate+3 from emp;

**OUTPUT:**

ENAME HIREDATE HIREDATE+3

---------- --------- ----------------------

SMITH 17-DEC-80 20-DEC-80

ALLEN 20-FEB-81 23-FEB-81

WARD 22-FEB-81 25-FEB-81

JONES 02-APR-81 05-APR-81

MARTIN 28-SEP-81 01-OCT-81

BLAKE 01-MAY-81 04-MAY-81

CLARK 09-JUN-81 12-JUN-81

SCOTT 19-APR-87 22-APR-87

KING 17-NOV-81 20-NOV-81

TURNER 08-SEP-81 11-SEP-81

ADAMS 23-MAY-87 26-MAY-87

JAMES 03-DEC-81 06-DEC-81

FORD 03-DEC-81 06-DEC-81

MILLER 23-JAN-82 26-JAN-82

|  |  |
| --- | --- |
| TITLE: DATE ROW FUNCTIONS | DATE:PAGE NO: 53 |

SQL> Select add\_month (sysdate, 3) from dual;

Note: Assume sysdate is 01-jan-06

**OUTPUT:**

ADD\_MONTH

---------------------

01-APR-10

SQL>select add\_months (sysdate,-3) from dual;

 Note:Assume sysdate is 01-jan-06.

 **OUTPUT:**

ADD\_MONTH

-------------------

01-OCT-10

SQL> Select sysdate, add\_months (sysdate,1), add\_months (sysdate, 1.5), add\_months

 (sysdate, 1.9) from dual;

**OUTPUT:**

SYSDATE ADD\_MONTH ADD\_MONTH ADD\_MONTH

--------- -------------- ---------------- ----------------

01-FEB-10 01-MAR-10 01-MAR-10 01-MAR-10

SQL> Select empno, hiredate, months\_between (sysdate, hiredate) from emp

 where months\_between(sysdate, hiredate)<200;

**OUTPUT:**

A: No rows selected

SQL> Select months\_between (‘01-mar-07’,’01-jan-07’) from dual;

 **OUTPUT:**

 MONTHS\_BETWEEN ('01-MAR-07','01-JAN-07')

----------------------------------------------------------------

 2

SQL> Select months\_between (’25-jan-08’,’20-jan-08’) from dual;

**OUTPUT:**

0

|  |  |
| --- | --- |
| TITLE: DATE ROW FUNCTIONS | DATE:PAGE NO: 54 |

SQL> Select floor (months\_between (’25-jan-08’,’20-jan-08’)) from dual;

**OUTPUT:**

FLOOR (MONTHS\_BETWEEN ('25-JAN-08','20=JAN-08'))

------------------------------------------------------------------------

 0

SQL> Select sysdate,next\_day (sysdate, ’mon’)from dual;

**OUTPUT:**

SYSDATE NEXT\_DAY (

------------ -----------------

02-FEB-10 08-FEB-10

SQL> Select sysdate,next\_day (sysdate,1) from dual;

**OUTPUT:**

SYSDATE NEXT\_DAY (

------------- -------------------------

02-FEB-10 07-FEB-10

SQL> Select sysdate,next\_day (sysdate, ’wed’) from dual;

**OUTPUT:**

SYSDATE NEXT\_DAY (

--------------- -------- ---------

02-FEB-10 03-FEB-10

SQL> Select sysdate,last\_day(sysdate)from dual;

**OUTPUT:**

SYSDATE LAST\_DAY (

------------ -------------------

02-FEB-10 28-FEB-10

|  |  |
| --- | --- |
| TITLE: DATE ROW FUNCTIONS | DATE:PAGE NO: 55 |

SQL> Select round (sysdate, ’day’) from dual;

 Note: Assume sysdate 9-dec-09.

**OUTPUT:**

ROUND(SYS

------------------

13-DEC-09

SQL> Select round (sysdate, ’month’) from dual;

 Note: Assume sysdate 11-dec-09.

**OUTPUT:**

ROUND(SYS

---------------------

01-DEC-09

SQL> Select round (sysdate, ’month’) from dual;

 Note: assume sysdate 15-dec-09.

**OUTPUT:**

ROUND(SYS

----------------------

01-DEC-09

SQL> Select round (sysdate, ’year’) from dual;

 Note: assume sysdate 11-dec-09.

**OUTPUT:**

ROUND(SYS

--------------------

01-JAN-10

SQL> Select round (sysdate, ’year’) from dual;

 Note: assume sysdate 30-jun-09.

**OUTPUT:**

ROUND(SYS

-------------------

01-JAN-09

|  |  |
| --- | --- |
| TITLE: CONVERSION FUNCTIONS | DATE:PAGE NO: 56 |

65\*.SQL> Select to\_char (1234, ’9, 999.99’) from dual;

**OUTPUT:**

TO\_CHAR (

-------------------

 1234.00

SQL> Select to\_char (1234, ’999, 999.999’) from dual;

**OUTPUT:**

TO\_CHAR (123

----------------------------

 1234.000

SQL> Select to\_char (1000-600, ’99999’) from dual;

**OUTPUT:**

TO\_CHA

------------------------

 400

SQL> Select to\_char (1234, ’9G999D99’) from dual;
**OUTPUT:**

TO\_CHAR (1

-------------------------

 1,234.00

SQL> Select to\_char (1234, ’000, 000.00’) from dual;

**OUTPUT:**

TO\_CHAR (12

------------------------------

 001234.00

SQL> Select to\_char (1234, ’009, 999.09’) from dual;

 **OUTPUT:**

 TO\_CHAR (12

 ---------------------------

 001234.00

|  |  |
| --- | --- |
| TITLE: CONVERSION FUNCTIONS | DATE:PAGE NO: 57 |

SQL> Select to\_char (1234, ’9900, 000.99’) from dual;

**OUTPUT:**

TO\_CHAR (123

-------------------------------

 01234.00

SQL> Select to\_char (1234, ’L9, 999.99’) from dual;

**OUTPUT:**

TO\_CHAR (1234, 'L999

------------------------------------

 $1234.00

SQL> Select to\_char (1234, ’9, 999.99L’) from dual;
 **OUTPUT:**

 TO\_CHAR (1234, '9999

-------------------------------

 1234.00$

SQL> Select to\_char (1234, ’L9G999D99’, ’NLS\_CURRENCY=RS’) from dual;

**OUTPUT:**

TO\_CHAR (1234,'L9G99

-----------------------------------

 RS1, 234.00

SQL> Select to\_char (1234, ’L9G999D99’, ’NLS\_CURRENCY=INR’) from dual;

**OUTPUT:**

TO\_CHAR (1234,'L9G99

-----------------------------------

 INR1, 234.00

|  |  |
| --- | --- |
| TITLE: CONVERSION FUNCTIONS | DATE:PAGE NO: 58 |

SQL> Select to\_char (1234, ’$9999’) from dual;

**OUTPUT:**

TO\_CHA

------------------------------

 $1234

SQL> Select to\_char (1234, ’9999$’) from dual;

**OUTPUT:**

TO\_CHA

-----------------------------

 $1234

SQL> Select to\_number (‘100RS’, ’999L’, ’NLS\_CURRENCY= RS’) from dual;

**OUTPUT:**

TO\_NUMBER ('100RS','999L','NLS\_CURRENCY=RS')

----------------------------------------------------------------------

 100

SQL> Select to\_number (’12,345.00$’, ’99, 999.99L’) from dual;

**OUTPUT:**

TO\_NUMBER ('12345.00$','99999.99L')

-----------------------------------------------------------

 12345

SQL> Select to\_number (‘$1,000.00’, ’L9,999.99’)+500 from dual;

**OUTPUT:**

TO\_NUMBER ('$1000.00', 'L9999.99')+500

--------------------------------------------------------

 1500

|  |  |
| --- | --- |
| TITLE: CONVERSION FUNCTIONS | DATE:PAGE NO: 59 |

SQL> Select to\_char (sysdate, ’dd\mon\yyyy’) from dual;

**OUTPUT:**

TO\_CHAR (SYS

-------------------------------------

02\feb\2010

SQL> Select to\_char (sysdate, ’ddth \month \yy’) from dual;

**OUTPUT:**

TO\_CHAR (SYSDA

------------------------------------------

02nd\feb\2010

SQL> Select to\_char(sysdate,’ww’) from dual;

**OUTPUT:**

TO

-------------------------

05

SQL> Select to\_char (sysdate, ’dd-mon-yyy HH24:mi’) from dual;

**OUTPUT:**

TO\_CHAR(SYSDATE,

--------------------------------------------

30-jun-009 13:35

|  |  |
| --- | --- |
| TITLE: CONVERSION FUNCTIONS | DATE:PAGE NO: 60 |

SQL> Select to\_char (sysdate, ’year’) from dual;

**OUTPUT:**

TO\_CHAR (SYSDATE,'YEAR')

---------------------------------------------------

Twenty ten

SQL> Select ename, hiredate, to\_char (hiredate, ’year’) from emp;

**OUTPUT:**

ENAME HIREDATE TO\_CHAR (HIREDATE,'YEAR')

---------- --------- ----------------------------------------------

SMITH 17-DEC-80 nineteen eighty

ALLEN 20-FEB-81 nineteen eighty-one

WARD 22-FEB-81 nineteen eighty-one

JONES 02-APR-81 nineteen eighty-one

MARTIN 28-SEP-81 nineteen eighty-one

BLAKE 01-MAY-81 nineteen eighty-one

CLARK 09-JUN-81 nineteen eighty-one

SCOTT 19-APR-87 nineteen eighty-seven

KING 17-NOV-81 nineteen eighty-one

TURNER 08-SEP-81 nineteen eighty-one

ADAMS 23-MAY-87 nineteen eighty-seven

JAMES 03-DEC-81 nineteen eighty-one

FORD 03-DEC-81 nineteen eighty-one

MILLER 23-JAN-82 nineteen eighty-two

SQL> Select sysdate,to\_char (sysdate, ’Q’) from dual;

 **OUTPUT:**

SYSDATE T

------------------ ---- -

02-FEB-10 1

|  |  |
| --- | --- |
| TITLE: CONVERSION FUNCTIONS | DATE:PAGE NO: 61 |

SQL> Select ename, hiredate, sal from emp where to\_char (hiredate, ’Q’) = 3;

**OUTPUT:**

ENAME HIREDATE SAL

---------- --------- ----------

MARTIN 28-SEP-81 1250

TURNER 08-SEP-81 1500

SQL> Select ename, hiredate, to\_char (hiredate,’d’) from emp

 where to\_char (hiredate,’d’) = 3;

**OUTPUT:**

ENAME HIREDATE T

---------- --------- -

CLARK 09-JUN-81 3

KING 17-NOV-81 3

TURNER 08-SEP-81 3

|  |  |
| --- | --- |
| TITLE: MISLENIOUS, GROUP FUNCTIONS  & GROUP BY CLAUSE | DATE:PAGE NO: 62 |

66\*.SQL>Select uid from dual;

**OUTPUT:**

 UID

 ------

 59

SQL> Select least (10, -20, 15, 0), greatest (10, -2, 15, 0) from dual;

**OUTPUT:**

LEAST (10,-20, 15, 0) GREATEST (10, -2, 15, 0)

------------------ --------------------

 -20 15

SQL>Select empno, comm., nvl (comm, 0) from emp;

**OUTPUT:**

 EMPNO COMM NVL (COMM,0)

 --------- ---------- -----------

 7369 0

 7499 300 300

 7521 500 500

 7566 0

 7654 1400 1400

 7698 0

 7782 0

 7788 0

 7839 0

 7844 0 0

 7876 0

 7900 0

 7902 0

 7934 0

|  |  |
| --- | --- |
| TITLE: MISLENIOUS, GROUP FUNCTIONS  & GROUP BY CLAUSE | DATE:PAGE NO: 63 |

SQL>Select empno, sal, sal+nvl (comm,0) from emp;

**OUTPUT:**

 EMPNO SAL SAL+NVL (COMM, 0)

 ---------- ---------- ---------------

 7369 800 800

 7499 1600 1900

 7521 1250 1750

 7566 2975 2975

 7654 1250 2650

 7698 2850 2850

 7782 2450 2450

 7788 3000 3000

 7839 5000 5000

 7844 1500 1500

 7876 1100 1100

 7900 950 950

 7902 3000 3000

 7934 1300 1300

SQL>Select length (‘12345’), vsize (‘12345’) from dual;

**OUTPUT:**

LENGTH ('12345') VSIZE ('12345')

--------------- --------------

 5 5

SQL>Select ename from emp

 where soundex (ename) = soundex (‘smth’);

**OUTPUT:**

ENAME

----------

SMITH

|  |  |
| --- | --- |
| TITLE: MISLENIOUS, GROUP FUNCTIONS  & GROUP BY CLAUSE | DATE:PAGE NO: 64 |

67\*. WAQ to display total salaries of employees?

SQL> select sum (Sal) from emp;

**OUTPUT:**

 SUM (SAL)

 --------------

 29025

68. WAQ to display the average of employees working in dept20?

 SQL> select sum (Sal) from emp;

**OUTPUT:**

 AVG (SAL)

 --------------

 2175

69. WAQ to display the highest and lowest salaries of employee?

 SQL> select max (Sal), min (Sal) from emp;

**OUTPUT:**

 MAX (SAL) MIN (SAL)

 ---------- ------------

 5000 800

70. WAQ to display the number of records in a table?

 SQL> select count (\*) from emp;

**OUTPUT:**

COUNT (\*)

------------------

 14

71. WAQ to display the number of records under salary column.
 SQL>select count (Sal) from emp;

**OUTPUT:**

COUNT (SAL)

---------------------

 14

|  |  |
| --- | --- |
| TITLE: MISLENIOUS, GROUP FUNCTIONS  & GROUP BY CLAUSE | DATE:PAGE NO: 65 |

72. WAQ to display the number of jobs in emp table.
 SQL>select count (job) from emp;

**OUTPUT:**

COUNT (JOB)

--------------------

 14

73. WAQ to display the no. of departments who are working as clerks eliminating duplicate values?

SQL>select count (distinct deptno) from emp

 where job='CLERK';

**OUTPUT:**

COUNT (DISTINCTDEPTNO)

-------------------------------------

 3

74\*. WAQ to display max salary of employees in each department?

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

**OUTPUT:**

 DEPTNO MAX (SAL)

 ---------- ----------

 10 5000

 20 3000

 30 850

75. WAQ to display total salaries of employee in each category of job?

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

**OUTPUT:**

JOB SUM (SAL)

--------- ----------

ANALYST 6000

|  |  |
| --- | --- |
| TITLE: MISLENIOUS, GROUP FUNCTIONS  & GROUP BY CLAUSE | DATE:PAGE NO: 66 |

CLERK 4150

MANAGER 8275

PRESIDENT 5000

SALESMAN 5600

76. WAQ to display total salaries of employee in each category of deptno and job?

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

**OUTPUT:**

 DEPTNO JOB SUM(SAL)

 ---------- --------- - ---------

 10 CLERK 1300

 10 MANAGER 2450

 10 PRESIDENT 5000

 20 CLERK 1900

 20 ANALYST 6000

 20 MANAGER 2975

 30 CLERK 950

 30 MANAGER 2850

 30 SALESMAN 5600

77. WAQ to display total salaries of employee in each department whose total salaries are

 5000?

 SQL>select deptno, sum (Sal) from emp group by deptno

 having (sum (sal)>5000);

**OUTPUT:**

 DEPTNO SUM (SAL)

-------- ----------

 10 8750

 20 10875

 30 9400

|  |  |
| --- | --- |
| TITLE: MISLENIOUS, GROUP FUNCTIONS  & GROUP BY CLAUSE | DATE:PAGE NO: 67 |

78. WAQ to display the average of employees who are working as clerk and manager in

 each department whose avg salaries are < 4000?

 SQL>select deptno, avg (Sal) from emp

 where job in('MANAGER','CLERK') group by deptno

 having (avg (sal)<4000);

**OUTPUT:**

 DEPTNO AVG (SAL)

-------- ----------

 10 1875

 20 1625

 30 1900

79. WAQ to display the avg salaries of employees in each dept who are working as clerk?

 SQL> select deptno, avg(sal) from emp where job = ‘CLERK’ group by deptno;

**OUTPUT:**

DEPTNO AVG(SAL)

------ ----------

 10 1300

 20 950

 30 950

80. WAQ to display no.of employees for each dept having more than 3?

 SQL> select deptno, count (\*) from emp group by deptno

 having count (\*)>3;

**OUTPUT:**

 DEPTNO COUNT (\*)

---------- ----------

 20 5

 30 6

|  |  |
| --- | --- |
| TITLE: FUNCTIONS EXAMPLES | DATE:PAGE NO: 68 |

81\*. WAQ to display List the number of employees and avg salaries of employees joined

 in 81, 82 & 83?

SQL> select count(\*) people, avg(sal) , to\_char(hiredate, ‘yy’) from emp

 group by (to\_char(hiredate,’yy’))

 having to\_char (hiredate, ‘yy’) in ( 81,82,83);

**OUTPUT:**

PEOPLE AVG(SAL) TO

------- ---------- --

 10 2282.5 81

 1 1300 82

82. WAQ to display lists the employees names and their experience in years?

SQL> Select ename, round (months\_between (sysdate, hiredate) / 12) exp from emp;

**OUTPUT:**

ENAME EXP

---------- ----------

SMITH 29

ALLEN 28

WARD 28

JONES 28

MARTIN 28

BLAKE 28

CLARK 28

SCOTT 22

KING 28

TURNER 28

ADAMS 22

JAMES 28

FORD 28

MILLER 27

|  |  |
| --- | --- |
| TITLE: FUNCTIONS EXAMPLES | DATE:PAGE NO: 69 |

83. WAQ to display list employee names who joined in dec & on Monday or Friday?

 SQL> Select ename from emp

 where to\_char ( hiredate, ‘mon’) = ‘DEC’ and to\_char(hiredate, ‘day’) in

 (‘MONDAY’ , ‘FRIDAY’);

**OUTPUT:**

no rows selected

84. WAQ to display list employee names and their hiredate sorted in the order of their experience?

 SQL> Select ename , hiredate, round(( sysdate-hiredate) / 365 , 1) exp from emp

 order by exp;

**OUTPUT:**

ENAME HIREDATE EXP

---------- -------------- ----------

ADAMS 23-MAY-87 22.1

SCOTT 19-APR-87 22.2

MILLER 23-JAN-82 27.5

KING 17-NOV-81 27.6

JAMES 03-DEC-81 27.6

FORD 03-DEC-81 27.6

MARTIN 28-SEP-81 27.8

TURNER 08-SEP-81 27.8

CLARK 09-JUN-81 28.1

BLAKE 01-MAY-81 28.2

JONES 02-APR-81 28.3

ALLEN 20-FEB-81 28.4

WARD 22-FEB-81 28.4

SMITH 17-DEC-80 28.6

|  |  |
| --- | --- |
| TITLE: FUNCTIONS EXAMPLES | DATE:PAGE NO: 70 |

85. WAQ to display list manager names and their joining dates completely spelled in

 alphabetical order of names?

SQL> Select ename, to\_char ( hiredate, ‘ddth month year’) from emp

 where job = ‘MANAGER’ order by ename;

**OUTPUT:**

 ENAME TO\_CHAR(HIREDATE,'DDTHMONTHYEAR')

---------- -----------------------------------

BLAKE 01st may nineteen eighty-one

CLARK 09th June nineteen eighty-one

JONES 02nd April nineteen eighty-one

86. WAQ to display list of employees having a min of 2 years experience sorted on

 experience?

SQL> Select ename ,hiredate,round((sysdate-hiredate) / 365,1) as exp from emp

 where round ((sysdate-hiredate) / 365 , 1) > 2 order by exp;

**OUTPUT:**

ENAME HIREDATE EXP

---------- --------- ----------

ADAMS 23-MAY-87 22.1

SCOTT 19-APR-87 22.2

MILLER 23-JAN-82 27.5

KING 17-NOV-81 27.6

JAMES 03-DEC-81 27.6

FORD 03-DEC-81 27.6

MARTIN 28-SEP-81 27.8

TURNER 08-SEP-81 27.8

CLARK 09-JUN-81 28.1

BLAKE 01-MAY-81 28.2

JONES 02-APR-81 28.3

ALLEN 20-FEB-81 28.4

WARD 22-FEB-81 28.4

|  |  |
| --- | --- |
|  TITLE: FUNCTIONS EXAMPLES | DATE:PAGE NO: 71 |

 87. WAQ to display list employee names and month names of joining?

 SQL> Select ename , to\_char(hiredate, ‘month’) month from emp;

**OUTPUT:**

ENAME MONTH

---------- ---------

SMITH december

ALLEN february

WARD february

JONES april

MARTIN september

BLAKE may

CLARK june

SCOTT april

KING november

TURNER september

ADAMS may

JAMES december

FORD december

MILLER january

88. WAQ to display list employees who joined b/w apr 81 and apr 82?

 SQL> Select empno, ename , hiredate from emp

 where to\_date(to\_char(hiredate, ‘MON YY’) , ‘MON YY’)

 between to\_date (‘APR 81’ ,‘MON YY’) AND to\_date (‘APR 82’ , ‘MON YY‘);

**OUTPUT:**

EMPNO ENAME HIREDATE

------ ---------- ---------

 7566 JONES 02-APR-81

 7654 MARTIN 28-SEP-81

|  |  |
| --- | --- |
| TITLE: FUNCTIONS EXAMPLES | DATE:PAGE NO: 72 |

 7698 BLAKE 01-MAY-81

 7782 CLARK 09-JUN-81

 7839 KING 17-NOV-81

 7844 TURNER 08-SEP-81

 7900 JAMES 03-DEC-81

 7902 FORD 03-DEC-81

 7934 MILLER 23-JAN-82

89. WAQ to display list number of employees joined year wise?

SQL > Select to\_char(hiredate, ‘yy’ ) year , count (ename) count from emp

 group by to\_char(hiredate,’yy’);

**OUTPUT:**

YE COUNT

-- ----------

80 1

81 10

82 1

87 2

90. WAQ to display list names of months in which a min of 3 persons joined?

SQL> Select to\_char(hiredate,’mon’) month , count(to\_char(hiredate,’mon’)) as count

 from emp

 group by to\_char(hiredate, ‘mon’)

 having count(to\_char(hiredate, ‘mon’)) >=3;

**OUTPUT:**

MON COUNT

--- ----------

dec 3

|  |  |
| --- | --- |
| TITLE: FUNCTIONS EXAMPLES | DATE:PAGE NO: 73 |

91. WAQ to display list the dept’s having min of 3 people having a min of 17 years of experience?

 SQL> Select deptno, count(ename) from emp

 where round((sysdate-hiredate) /365,1) > 17 group by deptno

 having count(ename) > 3;

**OUTPUT:**

DEPTNO COUNT(ENAME)

------- -----------

 20 5

 30 6

|  |  |
| --- | --- |
| TITLE: DATA INTIGRITY CONSTRAINTS | DATE:PAGE NO: 74 |

92\*.

a) Schema Diagram

 Department:

|  |  |  |
| --- | --- | --- |
| deptno | Dname | Loc |

Employee:

|  |  |  |  |
| --- | --- | --- | --- |
| Empno | Ename | Sal | deptno |

Create above tables using constraints (primary key, foreign key, check, ondelete cascade) and insert values.

SQL:> create table department(deptno number(10) constraint p\_k primarykey,dname

 varchar2(20) not null , loc varchar2(20) not null);

SQL:> insert into department values(10,’SALES’,’HYD’);

 Insert into department values(20’,’ACCOUNTING’,’PUNI’);

SQL:> create table employee (empno number(10) constraint p\_key primarykey,ename

 varchar2(10) not null,sal number(3,2) constraint c\_cnk check (sal >

 5000),deptno number(10) constraint f\_key foreignkey (deptno) references

 department(deptno) on delete cascade);

 SQL:> insert into employee values(102,’A’,8000,10);

 -> Drop check constraint on employee table.

 SQL:> alter table employee drop constraint c\_cnt;

 -> Drop primary key constraint on employee table.

 SQL:> alter table employee drop constraint p\_k;

 -> Drop not null constraint on employee table.

 SQL:> alter table employee alter column ename varchar(10) null;

|  |  |
| --- | --- |
| TITLE: DATA INTIGRITY CONSTRAINTS | DATE:PAGE NO: 75 |

 ->Add primary key constraint on empno column.

 SQL:> alter table employee add constraint p\_key primarykey(empno);

 ->Add check constraint on job column for list of values clerk, manager and

 analyst.

 SQL:> alter table employee add constraint c\_cnt check (job in

 (‘CLERK’,’MANAGER’,’ANALYST’));

 -> Add not null constraint on ename column.

 SQL:> alter table employee alter column ename varchar(10) not null;

 -> Add foreign key constraint on deptno column with ondelete cascade.

 SQL:> alter table employee add constraint f\_key foreignkey (dept)

 references dept(deptno) on delete cascade;

b) Schema Diagram.

Train Table:

|  |  |  |  |
| --- | --- | --- | --- |
| trainno | Compartment  | Seatno | doj |

 Note: Above 4 columns are primary key.

Create above table and insert atleast 4 records.

 SQL:> create table trains (trainno number(10),compartment varchar(10),seatno

 number(10),doj date, primarykey(trainno,compartment,seatno,doj));

 SQL:> insert into trains values(1456,’S1’,1,’6-11-07’);

 insert into trains values(1456,’S2’,2,’6-11-07’);

 insert into trains values(1457,’S1’,1,’6-11-07’);

 insert into trains values(1456,’S1’,4,’6-11-07’);

|  |  |
| --- | --- |
|  TITLE: DATA INTIGRITY CONSTRAINTS | DATE:PAGE NO: 76 |

C ) Schema Diagram.

Employee1:

|  |  |  |  |
| --- | --- | --- | --- |
| Empno(p.k) | Ename | Mgrid(f.k) | Deptno |

Create above table using constraint and insert values atleast 3.

 SQL:> create table employee1 (empno number(10) primarykey,enmae

 varchar(10) ,mgrid number(10) references employee1(empno),deptno

 number(10));

 SQL:> insert into employee1 values(101,’RAM’,NULL);

 insert into employee1 values(102,’RAM’,NULL);

 insert into employee1 values(103,’RAM’,NULL);

 SQL:> update employee1 set mgrid=102 where empno=101;

|  |  |
| --- | --- |
| TITLE: JOINS | DATE:PAGE NO: 77 |

93\*. WAQ to display eno, ename, sal, deptno, and deptname of the employee.

SQL:>select e.empno,e.ename,e.sal,d.deptno,d.dname from emp e ,dept d

 Where e.deptno=d.deptno;

**OUTPUT:**

 EMPNO ENAME SAL DEPTNO DNAME

------ ---------- ---------- ---------- -----------

 7369 SMITH 800 20 RESEARCH

 7499 ALLEN 1600 30 SALES

 7521 WARD 1250 30 SALES

 7566 JONES 2975 20 RESEARCH

 7654 MARTIN 1250 30 SALES

 7698 BLAKE 2850 30 SALES

 7782 CLARK 2450 10 ACCOUNTING

 7788 SCOTT 3000 20 RESEARCH

 7839 KING 5000 10 ACCOUNTING

 7844 TURNER 1500 30 SALES

 7876 ADAMS 1100 20 RESEARCH

 7900 JAMES 950 30 SALES

 7902 FORD 3000 20 RESEARCH

 7934 MILLER 1300 10 ACCOUNTING

94. WAQ to display ename, sal, job, and location of the employee.

SQL:> select e.empno,e.sal,e.job,d.loc from emp e,dept d

 where e.deptno=d.deptno;

**OUTPUT:**

EMPNO SAL JOB LOC

------ -------- --------- ---------

 7369 800 CLERK DALLAS

 7499 1600 SALESMAN CHICAGO

 7521 1250 SALESMAN CHICAGO

 7566 2975 MANAGER DALLAS

 7654 1250 SALESMAN CHICAGO

 7698 2850 MANAGER CHICAGO

 7782 2450 MANAGER NEW YORK

|  |  |
| --- | --- |
| TITLE: JOINS | DATE:PAGE NO: 78 |

 7788 3000 ANALYST DALLAS

 7839 5000 PRESIDENT NEW YORK

 7844 1500 SALESMAN CHICAGO

 7876 1100 CLERK DALLAS

 7900 950 CLERK CHICAGO

 7902 3000 ANALYST DALLAS

 7934 1300 CLERK NEW YORK

95. WAQ to display eno, ename, sal of the employee who are working in accounting

 dept.

SQL:> select e.empno,e.sal,e.job,d.loc from emp e,dept d

 where e.deptno=d.deptno

 and d.dname=’ACCOUNTING’;

**OUTPUT:**

 EMPNO SAL JOB LOC DNAME

------ ------- --------- ------------- -----------

 7782 2450 MANAGER NEW YORK ACCOUNTING

 7839 5000 PRESIDENT NEW YORK ACCOUNTING

 7934 1300 CLERK NEW YORK ACCOUNTING

96. WAQ to display all the details of employee who are working in Dallas.

 SQL:> select e.empno,e.ename,e.sal,e.job,d.loc from emp e,dept d

 where e.deptno=d.deptno and d.loc=’DALLAS’;

**OUTPUT:**

 EMPNO ENAME SAL JOB LOC

------ ---------- ------ --------- -------

 7369 SMITH 800 CLERK DALLAS

 7566 JONES 2975 MANAGER DALLAS

 7788 SCOTT 3000 ANALYST DALLAS

 7876 ADAMS 1100 CLERK DALLAS

 7902 FORD 3000 ANALYST DALLAS

|  |  |
| --- | --- |
| TITLE: JOINS | DATE:PAGE NO: 79 |

97. WAQ to display empno, ename, sal, job, and deptname of the employees whose

 salaries are greater than 2000 and working as manager.

SQL:> select e.empno,e.ename,e.sal,e.job,d.dname from emp e,dept d

 where e.deptno=d.deptno

 and e.sal>2000 and e.job=’MANAGER’;

**OUTPUT:**

EMPNO ENAME SAL JOB DNAME

------ ---------- ------- --------- ------------

 7566 JONES 2975 MANAGER RESEARCH

 7698 BLAKE 2850 MANAGER SALES

 7782 CLARK 2450 MANAGER ACCOUNTING

98. WAQ to display empno, ename, sal, and grade of the employee.

SQL:>select e.ename,e.ename,e.sal,s.grade from emp e,salgrade s

 where e.sal between s.losal and s.hisal;

**OUTPUT:**

ENAME ENAME SAL GRADE

---------- ---------- ---------- ----------

SMITH SMITH 800 1

ADAMS ADAMS 1100 1

JAMES JAMES 950 1

WARD WARD 1250 2

MARTIN MARTIN 1250 2

MILLER MILLER 1300 2

ALLEN ALLEN 1600 3

TURNER TURNER 1500 3

JONES JONES 2975 4

BLAKE BLAKE 2850 4

CLARK CLARK 2450 4

SCOTT SCOTT 3000 4

FORD FORD 3000 4

KING KING 5000 5

|  |  |
| --- | --- |
| TITLE: JOINS | DATE:PAGE NO: 80 |

99. WAQ to display empname, job, grade of all the employees.

SQL:> select e.ename,e.job,s.grade from emp e,salgrade s

 where e.sal between s.losal and s.hisal;

**OUTPUT:**

ENAME JOB GRADE

---------- --------- ----------

SMITH CLERK 1

ADAMS CLERK 1

JAMES CLERK 1

WARD SALESMAN 2

MARTIN SALESMAN 2

MILLER CLERK 2

ALLEN SALESMAN 3

TURNER SALESMAN 3

JONES MANAGER 4

BLAKE MANAGER 4

CLARK MANAGER 4

SCOTT ANALYST 4

FORD ANALYST 4

KING PRESIDENT 5

100. WAQ to display empno, ename, job, deptname, and grade of employee who are

 working as analyst.

 Sql:> select e.ename,e.sal,d.dname,s.grade from emp e,salgrade s,dept d

 where e.sal between s.losal and s.hisal

 and e.deptno=d.deptno;

**OUTPUT:**

 ENAME SAL DNAME GRADE

 ---------- -------- -------------- ----------

 SMITH 800 RESEARCH 1

 ADAMS 1100 RESEARCH 1

 JAMES 950 SALES 1

 WARD 1250 SALES 2

 MARTIN 1250 SALES 2

|  |  |
| --- | --- |
| TITLE: JOINS | DATE:PAGE NO: 81 |

 MILLER 1300 ACCOUNTING 2

 ALLEN 1600 SALES 3

 TURNER 1500 SALES 3

 JONES 2975 RESEARCH 4

 BLAKE 2850 SALES 4

 CLARK 2450 ACCOUNTING 4

 SCOTT 3000 RESEARCH 4

 FORD 3000 RESEARCH 4

 KING 5000 ACCOUNTING 5

101. WAQ to display empno, ename, sal, location of grade 3 employees.

SQL:> select e.ename,e.sal,e.empno,d.loc,s.grade from emp e,salgrade s,dept d

 where e.sal between s.losal and s.hisal

 and e.deptno=d.deptno and s.grade=3;

**OUTPUT:**

ENAME SAL EMPNO LOC GRADE

---------- ---------- ---------- ------------- ----------

ALLEN 1600 7499 CHICAGO 3

TURNER 1500 7844 CHICAGO 3

102. WAQ to display empno, ename, deptno, deptname and location of all the employees

 with unmatched record from emp table.

SQL:> select e.empno,e.ename,e.deptno,d.dname,d.loc from emp e left outer join dept d

 on e.deptno=d.deptno;

**OUTPUT:**

EMPNO ENAME DEPTNO DNAME LOC

------ ---------- ---------- -------------- ---------

 7934 MILLER 10 ACCOUNTING NEW YORK

 7839 KING 10 ACCOUNTING NEW YORK

 7782 CLARK 10 ACCOUNTING NEW YORK

 7902 FORD 20 RESEARCH DALLAS

 7876 ADAMS 20 RESEARCH DALLAS

 7788 SCOTT 20 RESEARCH DALLAS

 7566 JONES 20 RESEARCH DALLAS

|  |  |
| --- | --- |
| TITLE: JOINS | DATE:PAGE NO: 82 |

 7369 SMITH 20 RESEARCH DALLAS

 7900 JAMES 30 SALES CHICAGO

 7844 TURNER 30 SALES CHICAGO

 7698 BLAKE 30 SALES CHICAGO

 7654 MARTIN 30 SALES CHICAGO

 7521 WARD 30 SALES CHICAGO

 7499 ALLEN 30 SALES CHICAGO

103. WAQ to display empno, ename, deptno, deptname, location from emp and

 unmatched record from dept table.

SQL:> select e.empno,e.ename,e.deptno,d.dname,d.loc from emp e right outer join dept d

 on e.deptno=d.deptno;

**OUTPUT:**

EMPNO ENAME DEPTNO DNAME LOC

------ ---------- ---------- -------------- ---------

 7369 SMITH 20 RESEARCH DALLAS

 7499 ALLEN 30 SALES CHICAGO

 7521 WARD 30 SALES CHICAGO

 7566 JONES 20 RESEARCH DALLAS

 7654 MARTIN 30 SALES CHICAGO

 7698 BLAKE 30 SALES CHICAGO

 7782 CLARK 10 ACCOUNTING NEW YORK

 7788 SCOTT 20 RESEARCH DALLAS

 7839 KING 10 ACCOUNTING NEW YORK

 7844 TURNER 30 SALES CHICAGO

 7876 ADAMS 20 RESEARCH DALLAS

 7900 JAMES 30 SALES CHICAGO

 7902 FORD 20 RESEARCH DALLAS

 7934 MILLER 10 ACCOUNTING NEW YORK

 OPERATIONS BOSTON

|  |  |
| --- | --- |
| TITLE: JOINS | DATE:PAGE NO: 83 |

104. WAQ to display matched and unmatched records from emp and dept tables.

SQL:> select e.empno,e.ename,e.deptno,d.dname,d.loc from emp e full outer join dept d

 on e.deptno=d.deptno;

**OUTPUT:**

 EMPNO ENAME DEPTNO DNAME LOC

------ ---------- ---------- -------------- --------

 7934 MILLER 10 ACCOUNTING NEW YORK

 7839 KING 10 ACCOUNTING NEW YORK

 7782 CLARK 10 ACCOUNTING NEW YORK

 7902 FORD 20 RESEARCH DALLAS

 7876 ADAMS 20 RESEARCH DALLAS

 7788 SCOTT 20 RESEARCH DALLAS

 7566 JONES 20 RESEARCH DALLAS

 7369 SMITH 20 RESEARCH DALLAS

 7900 JAMES 30 SALES CHICAGO

 7844 TURNER 30 SALES CHICAGO

 7698 BLAKE 30 SALES CHICAGO

 7654 MARTIN 30 SALES CHICAGO

 7521 WARD 30 SALES CHICAGO

 7499 ALLEN 30 SALES CHICAGO

 OPERATIONS BOSTON

105. WAQ to display the managers of all the employees.

 SQL:> select e1.empno,e1.ename,e2.empno as mgrid,e2.ename as mgrname from emp

 e1,emp e2

 where e1.mgr=e2.empno;

**OUTPUT:**

 EMPNO ENAME MGRID MGRNAME

------ ---------- ---------- -------

 7369 SMITH 7902 FORD

 7499 ALLEN 7698 BLAKE

 7521 WARD 7698 BLAKE

 7566 JONES 7839 KING

 7654 MARTIN 7698 BLAKE

 7698 BLAKE 7839 KING

|  |  |
| --- | --- |
| TITLE: JOINS | DATE:PAGE NO: 84 |

 7782 CLARK 7839 KING

 7788 SCOTT 7566 JONES

 7844 TURNER 7698 BLAKE

 7876 ADAMS 7788 SCOTT

 7900 JAMES 7698 BLAKE

 7902 FORD 7566 JONES

 7934 MILLER 7782 CLARK

106. WAQ to display list of employees having commission along with grade.

SQL:>select distinct empno,ename,comm,grade from emp,salgrade

 where sal between losal and hisal and comm is not null;

**OUTPUT:**

 EMPNO ENAME COMM GRADE

------ ---------- ---------- ----------

 7499 ALLEN 300 3

 7521 WARD 500 2

 7654 MARTIN 1400 2

 7844 TURNER 0 3

107. WAQ to display list of names of employees who are working in same dept of their

 managers.

SQL:> select e1.ename,e1.deptno,e2.ename manager,e2.deptno from emp e1,emp e2

 where e1.deptno=e2.deptno and e1.mgr=e2.empno;

**OUTPUT:**

ENAME DEPTNO MANAGER DEPTNO

---------- ---------- ---------- ----------

SMITH 20 FORD 20

ALLEN 30 BLAKE 30

WARD 30 BLAKE 30

MARTIN 30 BLAKE 30

CLARK 10 KING 10

SCOTT 20 JONES 20

TURNER 30 BLAKE 30

ADAMS 20 SCOTT 20

JAMES 30 BLAKE 30

|  |  |
| --- | --- |
| TITLE: JOINS | DATE:PAGE NO: 85 |

FORD 20 JONES 20

MILLER 10 CLARK 10

108. WAQ to display list the names of the employees having first character in their

 names, first character in their dept name same.

 SQL:> select e.ename,e.deptno,d.dname from emp e,dept d

 where e.deptno=d.deptno

 And substr(e.ename,1,1)=substr(d.dname,1,1);

**OUTPUT:**

No rows selected.

109. WAQ to display list of employees who joined in the present month in any year and

 having grade and last digit in the year are same.

 SQL:> select distinct e.ename,s.grade,e.hiredate from emp e ,salgrade s

 where e.sal between s.losal and s.hisal

 and to\_char(e.hiredate,’MON’)= to\_char(sysdate,’MON’)

 and s.grade=substr(to\_char(e.hirdate,’yyyy’),4,4);

**OUTPUT:**

No rows selected.

110. WAQ to display list names of employees whose empno, mgr, and grade given the same remainder with divided by 2.

SQL:> select distinct empno,mgr , grade from emp,salgrade

 where sal between losal and hisal

 and mod(empno,2)=mod(mgr,2) and mod(mgr,2)=mod(grade,2);

**OUTPUT:**

EMPNO MGR GRADE

------ ---------- ----------

 7654 7698 2

 7788 7566 4

 7902 7566 4

 7934 7782 2

|  |  |
| --- | --- |
| TITLE: JOINS | DATE:PAGE NO: 86 |

111. WAQ to display list names of clerks who report to analyst.

SQL:> select e1.empno,e1.ename,e1.mgr,e1.job,e2.empno,e2.ename,e2.job from emp

 e1,emp e2

 where e1.mgr=e2.empno and e1.job=’CLERK’ and e2.job=’ANALYST’;

**OUTPUT:**

 EMPNO ENAME MGR JOB EMPNO ENAME JOB

------ ---------- ------- --------- -------- ---------- --------

 7369 SMITH 7902 CLERK 7902 FORD ANALYST

 7876 ADAMS 7788 CLERK 7788 SCOTT ANALYST

112. WAQ to display list names of employees having month number of hiredate and

 grade same.

SQL:>select distinct ename,to\_char(hiredate,’MM’) num,grade from emp ,salgrade

 where sal between losal and hisal and to\_char(hiredate,’MM’)= grade;

**OUTPUT:**

ENAME NU GRADE

---------- -- ----------

WARD 02 2

JONES 04 4

SCOTT 04 4

113. WAQ to display list the names of employees having grade and tens position in the

 Deptno same.

SQL:> select distinct ename,deptno,grade from emp,salgrade

 where sal between losal and hisal and grade=substr(deptno,1,1);

**OUTPUT:**

ENAME DEPTNO GRADE

---------- ---------- ----------

ALLEN 30 3

TURNER 30 3

114. WAQ to display list emp names and their managers names having same grade.

 SQL:> select distinct e1.empno,e1.ename,e1.mgr,s1.grade,e2.empno,e2.ename

 manager,s2.grade from emp e1,emp e2,salgrade s1,salgrade s2

 where e1.mgr=e2.empno and e1.sal between s1.losal and s1.hisal and e2.sal

 between s2.losal and s2.hisal and s1.grade=s2.grade;

|  |  |
| --- | --- |
| TITLE: JOINS | DATE:PAGE NO: 87 |

**OUTPUT:**

 EMPNO ENAME MGR GRADE EMPNO MANAGER GRADE

------ ---------- ---------- ---------- ---------- ---------- ----------

 7902 FORD 7566 4 7566 JONES 4

 7788 SCOTT 7566 4 7566 JONES 4

115. WAQ to display list emp names of employees who joined before their managers joining date.

SQL:> select e1.empno,e1.ename,e1.mgr,e1.hiredate,e2.empno,e2.ename,e2.hiredate

 from emp e1,emp e2

 where e1.mgr=e2.empno and e1.hiredate < e2.hiredate;

**OUTPUT:**

 EMPNO ENAME MGR HIREDATE EMPNO ENAME HIREDATE

------ ---------- ------- --------- ------- ---------- --------- -----------

 7369 SMITH 7902 17-DEC-80 7902 FORD 03-DEC-81

 7499 ALLEN 7698 20-FEB-81 7698 BLAKE 01-MAY-81

 7521 WARD 7698 22-FEB-81 7698 BLAKE 01-MAY-81

 7566 JONES 7839 02-APR-81 7839 KING 17-NOV-81

 7698 BLAKE 7839 01-MAY-81 7839 KING 17-NOV-81

 7782 CLARK 7839 09-JUN-81 7839 KING 17-NOV-81

|  |  |
| --- | --- |
| TITLE: SUBQUERIES & CO-RELATED SUBQUERIES | DATE:PAGE NO: 88 |

116\*. WAQ to display all employees who are working in scott department.

 SQL:> Select \* from emp

 where deptno=(select deptno from emp where ename=’SCOTT’);

**OUTPUT:**

EMPNO ENAME JOB MGR HIREDATE SAL COMM DEPTNO

---------- ------------ -------- --------- -------------- ------- --------- ----------

 7369 SMITH CLERK 7902 17-DEC-80 800 20

 7566 JONES MANAGER 7839 02-APR-81 2975 20

 7788 SCOTT ANALYST 7566 19-APR-87 3000 20

 7876 ADAMS CLERK 7788 23-MAY-87 1100 20

 7902 FORD ANALYST 7566 03-DEC-81 3000 20

117. WAQ to display the employees who are working in sales department.

 Sql:> select \* from emp

 where deptno=(select deptno from dept where dname=’SALES’);

**OUTPUT:**

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

 7698 BLAKE MANAGER 7839 01-MAY-81 2850 30

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

 7900 JAMES CLERK 7698 03-DEC-81 950 30

|  |  |
| --- | --- |
| TITLE: SUBQUERIES & CO-RELATED SUBQUERIES | DATE:PAGE NO: 89 |

118. WAQ to display employees who are doing the same job as jones.

SQL:> select \* from emp

 where job=(select job from emp where ename=’JONES’);

**OUTPUT:**

EMPNO ENAME JOB MGR HIREDATE SAL COMM DEPTNO

----------- ---------- --------- -------- ----------------- ------ --------- -----------

 7566 JONES MANAGER 7839 02-APR-81 2975 20

 7698 BLAKE MANAGER 7839 01-MAY-81 2850 30

 7782 CLARK MANAGER 7839 09-JUN-81 2450 10

119. WAQ to display the names of john’s manager.

SQL:> select ename from emp

 where empno=(select mgr from emp where ename=’JONES’);

**OUTPUT:**

ENAME

-------------

KING

 120. WAQ to display the employees whose salaries are more than the average salaries of

 employees in deptno 20.

SQL:> select \* from emp

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

**OUTPUT:**

EMPNO ENAME JOB MGR HIREDATE SAL COMM DEPTNO

------ ---------- --------- ---------- ---------------- ------- -------- ----------

 7566 JONES MANAGER 7839 02-APR-81 2975 20

 7698 BLAKE MANAGER 7839 01-MAY-81 2850 30

 7782 CLARK MANAGER 7839 09-JUN-81 2450 10

 7788 SCOTT ANALYST 7566 19-APR-87 3000 20

 7839 KING PRESIDENT 17-NOV-81 5000 10

 7902 FORD ANALYST 7566 03-DEC-81 3000 20

|  |  |
| --- | --- |
| TITLE: SUBQUERIES & CO-RELATED SUBQUERIES | DATE:PAGE NO: 90 |

121. WAQ to display employees working in sales & accounting department.

SQL:> select \* from emp

 where deptno in(select deptno from dept where dname

 in(‘SALES’,’ACCOUNTIN’));

**OUTPUT:**

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

 7698 BLAKE MANAGER 7839 01-MAY-81 2850 30

 7782 CLARK MANAGER 7839 09-JUN-81 2450 10

 7839 KING PRESIDENT 17-NOV-81 5000 10

 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

122. WAQ to display employees whose salaries are more than the minimum salaries in

 deptno 10.

SQL:> select \* from emp

 where sal > any(select sal from emp where deptno=10);

**OUTPUT:**

 EMPNO ENAME JOB MGR HIREDATE SAL COMM DEPTNO

------------ --------- -------- --------- ---------------- ------- ---------- ----------

 7499 ALLEN SALESMAN 7698 20-FEB-81 1600 300 30

 7566 JONES MANAGER 7839 02-APR-81 2975 20

 7698 BLAKE MANAGER 7839 01-MAY-81 2850 30

 7782 CLARK MANAGER 7839 09-JUN-81 2450 10

 7788 SCOTT ANALYST 7566 19-APR-87 3000 20

 7839 KING PRESIDENT 17-NOV-81 5000 10

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

|  |  |
| --- | --- |
| TITLE: SUBQUERIES & CO-RELATED SUBQUERIES | DATE:PAGE NO: 91 |

123. WAQ to display employees whose salaries are less than the maximum salaries in

 dept no 20.

SQL:> select \* from emp

 where sal < any(select sal from emp where deptno=20);

**OUTPUT:**

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

 7566 JONES MANAGER 7839 02-APR-81 2975 20

 7654 MARTIN SALESMAN 7698 28-SEP-81 1250 1400 30

 7698 BLAKE MANAGER 7839 01-MAY-81 2850 30

 7782 CLARK MANAGER 7839 09-JUN-81 2450 10

 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

124\*. WAQ to display first highest salary of employees.

SQL:> select \* from emp

 where 0=(select count(\*) from emp e where emp.sal < e.sal );

**OUTPUT:**

 EMPNO ENAME JOB MGR HIREDATE SAL COMM DEPTNO

 ------ ---------- --------- ---------- --------- ---------- ---------- --------- ----------

 7839 KING PRESIDENT 17-NOV-81 5000 10

125. WAQ to display tenth highest paid salaries of employees.

 SQL:> select \* from emp

 where 9=(select count(\*) from emp e where emp.sal < e.sal );

|  |  |
| --- | --- |
| TITLE: SUBQUERIES & CO-RELATED SUBQUERIES | DATE:PAGE NO: 92 |

**OUTPUT:**

EMPNO ENAME JOB MGR HIREDATE SAL COMM DEPTNO

------ ---------- - -------- ---------- --------- ---------- ----- ----- - -------

 7521 WARD SALESMAN 7698 22-FEB-81 1250 500 30

 7654 MARTIN SALESMAN 7698 28-SEP-81 1250 1400 30

126. WAQ to display the first least salaries of employees.

 SQL:> select \* from emp

 where 0=(select count(\*) from emp e where emp.sal > e.sal );

**OUTPUT:**

EMPNO ENAME JOB MGR HIREDATE SAL COMM DEPTNO

------ ---------- --------- ---------- --------- ---------- ---------- ---------- ------------

 7369 SMITH CLERK 7902 17-DEC-80 800 20

127. WAQ to display top three highest salaries.

 SQL:> select sal from emp

 where 3 > (select count(\*) from emp e where emp.sal <e.sal) order by sal;

**OUTPUT:**

 SAL

-----------

 3000

 3000

 5000

128. WAQ to display top ten highest salaries.

 SQL:> select distinct sal from emp

 where 10 > (select count(\*) from emp e where emp.sal < e.sal) order by sal;

|  |  |
| --- | --- |
| TITLE: SUBQUERIES & CO-RELATED SUBQUERIES | DATE:PAGE NO: 93 |

**OUTPUT:**

 SAL

 ------

 1250

 1300

 1500

 1600

 2450

 2850

 2975

 3000

 5000

129. WAQ to display top five lowest salaries.

SQL:> select distinct sal from emp

 where 5 > (select count(\*) from emp e where emp.sal > e.sal) order by sal;

**OUTPUT:**

 SAL

--------

 800

 950

 1100

 1250

|  |  |
| --- | --- |
| TITLE: VIEWS | DATE:PAGE NO: 94 |

130.Create a VIEW with Check Option.

 SQL> Create view RAMANA

 As

 Select \* from emp where deptno=20

 With check option;

SQL>select \* from RAMANA ;

 SQL> insert into RAMANA (empno ,deptno) values(200,10);

 Ouptput:

Error:since view created with check option

 SQL> insert into RAMANA(empno,deptno) values(222,20);

 Output:

One row inserted.

 SQL> create view dept\_read

As

Select \* from dept

With read only;

 SQL> update dept\_read set loc=’hyd’

where deptno=30;

 Output:

 Error:since view created with readonly option.

|  |  |
| --- | --- |
| TITLE: PL/SQL CURSORS & RECORDS | DATE:PAGE NO: 95 |

131. Write a PL/SQL program to display a message

 SQL:>

 begin

 dbms\_output.put\_line('welcome to PL/SQL');

 end;

**OUTPUT**

 welcome to pl/sql.

132. Write a progam to find product of two numbers.

 SQL>

 declare

 a number(5):=&a;

 b number(5):=&b;

 begin

 dbms\_output.put\_line('product is '||(a\*b));

 end;

**INPUT**

Enter value for a=4;

Enter value for b=5;

**OUTPUT**

 product is 20

133. WAP to dispaly dname and location for given department

 from dept table.

 SQL>

declare

 dno number(5):=&dno;

 vdname varchar(20);

 vloc varchar(10);

 begin

 select dname,loc into vdname,vloc from dept where deptno=dno;

 dbms\_output.put\_line(dno||' '||vdname||' '||vloc);

 end;

**INPUT**

Enter value for dno:10

**OUTPUT**

 10 ACCOUNTING NEWYORK

.

 134. WAP to display ename,job,sal for given employees from emp table

 SQL>

declare

 vno number(5):=&empno;

 vname varchar(25);

 vjob varchar(10);

 vsal number(7,2);

begin

 select ename,job,sal into vname,vjob,vsal from emp where empno=vno;

 dbms\_output.put\_line(vno||' '||vname||' '||vjob||' '||vsal);

 end;

**INPUT**

 Enter value for empno:7566

**OUTPUT**

 7566 JONES MANAGER 2975

135. WAP to display complete data for a given department from

 dept table.

 SQL:>

 declare

 d dept%rowtype;

 dno number(2):=&deptno;

 begin

 select \* into d from dept where deptno=dno;

 dbms\_output.put\_line(d.deptno||' '||d.dname||' '||d.loc);

 end;

 **INPUT**

 Enter value for deptno:20

**OUTPUT**

 20 research dallas

|  |  |
| --- | --- |
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| TITLE: PL/SQL CURSORS & RECORDS | DATE:PAGE NO: 97 |

136. WAP to display complete data for a given employee from

 emp table.

 SQL:>

 declare

 e emp%rowtype;

 eno emp.empno%type:=&empno;

 begin

 select \* into e from emp where empno=eno;

 dbms\_output.put\_line(e.empno||' '||e.ename||' '||e.job||'

 '||e.deptno);

 end;

**INPUT**

 Enter value for empno:7788

**OUTPUT**

 7788 SCOTT ANALYST 20

137. WAP to chech whether given number is even or odd.

 SQL:>

 declare

 n number(5):=&n;

 begin

 if(mod(n,2)=0) then

 dbms\_output.put\_line('GIVEN NUMBER IS

 EVEN');

 else

 dbms\_output.put\_line('GIVEN NUMBER IS

 ODD');

 end if;

 end;

 **INPUT**

 Enter value for n:8

**OUTPUT**

 GIVEN NUMBER IS EVEN

138. WAP to assign the bonus based on job and dept number.

 SQL:>

 declare

 vno emp.empno%type:=&empno;

 vjob emp.job%type;

 vdno emp.deptno%type;

|  |  |
| --- | --- |
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| TITLE: PL/SQL CURSORS & RECORDS | DATE:PAGE NO: 98 |

 bonus number(5);

 begin

 select job,deptno into vjob,vdno from emp where

 empno=vno;

 if( (vjob='MANAGER' or vjob='ANALYST' ) and

 vdno=20 )

 then bonus:=2000;

 else bonus:=1000;

 end if;

 dbms\_output.put\_line(vno||' '||vjob||' '||bonus);

 end;

 **INPUT**

 Enter value for empno:7521

 **OUTPUT**

 7521 SALESMAN 1000

139. WAP to modify the salaries of employees based on job and

 current salary.

 SQL:>

declare

 vno emp.empno%type:=&empno;

 vjob emp.job%type;

 vsal emp.sal%type;

 begin

 select job,sal into vjob,vsal from emp where

 empno=vno;

 if(vjob='MANAGER' and vsal>3000)

 then

 update emp set sal=sal+2500 where empno=vno;

 dbms\_output.put\_line(vno||' '||vjob||' '||vsal);

 elsif(vjob='ANALYST' and vsal>=2500)

 then

 update emp set sal=sal+1500 where empno=vno;

 dbms\_output.put\_line(vno||' '||vjob||' '||vsal);

 elsif(vjob='PRESIDENT' and vsal>=500)

 then

 update emp set sal=sal+3000 where empno=vno;

 dbms\_output.put\_line(vno||' '||vjob||' '||vsal);

 else

 update emp set sal=sal+1000 where empno=vno;

 dbms\_output.put\_line(vno||' '||vjob||' '||vsal);

 end if;

 end;

**INPUT**

 Enter value for empno:7698

**OUTPUT**

 7698 MANAGER 2850

140. WAP to print all odd numbers upto given number.

 SQL>

declare

 n number(5):=&n;

 begin

 for i in 1..n

 loop

 if(mod(i,2)!=0)then

 dbms\_output.put\_line(i);

 end if;

 end loop;

 end;

**INPUT**

 Enter value for n:10

**OUTPUT**

 1

 3

 5

 7

 9

141. WAP to display deptno,dname,location for all departments in

 dept table using cursor.

 SQL:>

 declare

 cursor c1

 is select \* from dept;

 vdno dept.deptno%type;

 vdname dept.dname%type;

 vloc dept.loc%type;

 begin

 open c1;

 loop

 fetch c1 into vdno,vdname,vloc;

|  |  |
| --- | --- |
| TITLE: PL/SQL CURSORS & RECORDS | DATE:PAGE NO: 99 |
| TITLE: PL/SQL CURSORS & RECORDS | DATE:PAGE NO: 100 |

 exit when c1%notfound;

 dbms\_output.put\_line(rpad(vdno,15,' ')||rpad(vdname,15,'

 ')||vloc );

 end loop;

 close c1;

 end;

**OUTPUT**

 10 ACCOUNTING NEWYORK

 20 RESEARCH DALLAS

 30 SALES CHICAGO

 40 OPERATIONS BOSTON

142. WAP to display empno,ename,job,sal for all tenth department

 employees in emp table using cursor.

 SQL:>

 declare

 cursor

 c1 is

 select empno,ename,job,sal from emp where deptno=10;

 vno emp.empno%type;

 vname emp.ename%type;

 vsal emp.sal%type;

 vjob emp.job%type;

 begin

 open c1;

 loop

 fetch c1 into vno,vname,vjob,vsal;

 exit when c1%notfound;

 dbms\_output.put\_line(RPAD(vno,10,'')||RPAD(vname,15,' ')||RPAD(vjob,15,' ')||vsal);

 end loop;

 close c1;

 end;

**OUTPUT**

 7782 CLARK MANAGER 2450

 7839 KING PRESIDENT 5000

 7934 MILLER CLERK 1300

.

 143. WAP to display net salary for all employees in emp table using cursor

 sql:>

 declare

 cursor c1 is select \* from emp;

|  |  |
| --- | --- |
| TITLE: PL/SQL CURSORS & RECORDS | DATE:PAGE NO: 101 |

 i emp%rowtype;

 net number(8);

 begin

 open c1;

 loop

 fetch c1 into i;

 exit when c1%notfound;

 net:=i.sal+nvl(i.comm,0);

 dbms\_output.put\_line( RPAD(i.empno,10,' ')||

 RPAD(i.ename,15,' ')||

 RPAD(i.sal,10,' ') || net);

 end loop;

 close c1;

 end;

**OUTPUT**

 7369 SMITH 800 800

 7499 ALLEN 1600 1900

 7521 WARD 1250 1750

 7566 JONES 3975 3975

 7654 MARTIN 1250 2650

 7698 BLAKE 3850 3850

 7782 CLARK 2450 2450

 7788 SCOTT 3000 3000

 7839 KING 5000 5000

 7844 TURNER 1500 1500

 7876 ADAMS 1100 1100

 7900 JAMES 950 950

 7902 FORD 3000 3000

 7934 MILLER 1300 1300

144. WAP to find net salary and experience for all managers and

 clerks in emp table.

 sql:>

 declare

 cursor c1 is select \* from emp;

 i emp%rowtype;

 net number(8,2);

 exp number(8,2);

 begin

 open c1;

 loop

 fetch c1 into i;

|  |  |
| --- | --- |
| TITLE: PL/SQL CURSORS & RECORDS | DATE:PAGE NO: 102 |

 exit when c1%notfound;

 if(i.job='MANAGER' or i.job='CLERK')

 then

 net:=i.sal+nvl(i.comm,0);

 exp:=round( months\_between(sysdate,(i.hiredate) )/12 );

 dbms\_output.put\_line( rpad(i.empno,10,' ') ||

 rpad(i.sal,10,' ') ||

 rpad(i.comm,10,' ') || rpad(i.hiredate,12,' ')||rpad(net,10,'

 ')||exp );

 end if;

 end loop;

 close c1;

 end;

**OUTPUT**

 7369 800 17-DEC-80 800 26

 7566 3975 02-APR-81 3975 25

 7698 3850 01-MAY-81 3850 25

 7782 2450 09-JUN-81 2450 25

 7876 1100 23-MAY-87 1100 19

 7900 950 03-DEC-81 950 25

 7934 1300 23-JAN-82 1300 24

145. WAP to display all employees data from emp table using

 cursor for loop.

 SQL:>

 declare

 cursor c1 is select \* from emp;

 begin

 for i in c1

 loop

 dbms\_output.put\_line( RPAD(i.empno,10,' ')||

 RPAD(i.ename,15,' '

 || RPAD(i.job,15,' ') || i.deptno );

 end loop;

 end;

**OUTPUT**

 7369 SMITH CLERK 20

|  |  |
| --- | --- |
| TITLE: PL/SQL CURSORS & RECORDS | DATE:PAGE NO: 103 |

 7499 ALLEN SALESMAN 30

 7521 WARD SALESMAN 30

 7566 JONES MANAGER 20

 7654 MARTIN SALESMAN 30

 7698 BLAKE MANAGER 30

 7782 CLARK MANAGER 10

 7788 SCOTT ANALYST 20

 7839 KING PRESIDENT 10

 7844 TURNER SALESMAN 30

 7876 ADAMS CLERK 20

 7900 JAMES CLERK 30

 7902 FORD ANALYST 20

 7934 MILLER CLERK 10

146. WAP to assign the bonus of all employees based on job and

 experience using cursor-for loop.

 SQL:>

 declare

 cursor c1 is select \* from emp;

 exp number(5);

 bonus number(5);

 begin

 for i in c1

 loop

 exp:=round( ( months\_between(sysdate,i.hiredate) )/12

 );

 if(i.job='MANAGER' and exp<20)then

 bonus:=2500;

 elsif (i.job='ANALYST' and exp>20) then

 bonus:=2000;

 elsif (i.job='SALESMAN' and exp>25) then

 bonus:=1500;

 else

 bonus:=1000;

 end if;

 dbms\_output.put\_line( rpad(i.empno,10,' ')

 || rpad(i.ename,15,' ')|| bonus);

 end loop;

 end;

**OUTPUT**

 7369 SMITH 1000

 7499 ALLEN 1000

 7521 WARD 1000

 7566 JONES 1000

|  |  |
| --- | --- |
| TITLE: PL/SQL CURSORS & RECORDS | DATE:PAGE NO: 104 |

 7654 MARTIN 1000

 7698 BLAKE 1000

 7782 CLARK 1000

 7788 SCOTT 1000

 7839 KING 1000

 7844 TURNER 1000

 7876 ADAMS 1000

 7900 JAMES 1000

 7902 FORD 2000

 7934 MILLER 1000

147. WAP to display given department employee data from emp

 table using cursor with parameters.

 SQL:>

 declare

 cursor c1(dno number) is select \* from emp where

 deptno=dno;

 e emp%rowtype;

 begin

 open c1(&dno);

 loop

 fetch c1 into e;

 exit when c1%notfound;

 dbms\_output.put\_line(rpad(e.empno,10,'

 ')||rpad(e.ename,15,' ')

 ||rpad(e.job,15,' ') || e.deptno );

 end loop;

 close c1;

 end;

**INPUT**

Enter value for dno: 10

**OUTPUT**

 7782 CLARK MANAGER 10

 7839 KING PRESIDENT 10

 7934 MILLER CLERK 10

148. WAP to display 30th department salesman data using cursor

 with parameter.

 SQL:>

 declare

|  |  |
| --- | --- |
| TITLE: PL/SQL CURSORS & RECORDS | DATE:PAGE NO: 105 |

 cursor c1( dno number,vjob varchar2 )

 is

 select \* from emp

 where deptno=dno and job=vjob;

 begin

 for i in c1(30,'SALESMAN')

 loop

 dbms\_output.put\_line( RPAD(i.empno,10,' ')||

 RPAD(i.ename,15,' ')

 || RPAD(i.job,15,' ') || i.deptno);

 end loop;

 end;

**OUTPUT**

 7499 ALLEN SALESMAN 30

 7521 WARD SALESMAN 30

 7654 MARTIN SALESMAN 30

 7844 TURNER SALESMAN 30

149. write any program for strong cursor.

 SQL:>

 declare

 type ref\_emp\_cur is ref cursor return

 emp%rowtype;

 emp\_var ref\_emp\_cur;

 i emp%rowtype;

 begin

 open emp\_var for select \* from emp where sal<1000;

 loop

 fetch emp\_var into i;

 exit when emp\_var%notfound;

 dbms\_output.put\_line(rpad(i.empno,10,' ')||

 rpad(i.ename,15,' ')||i.sal);

 end loop;

 close emp\_var;

 open emp\_var for select \* from emp where

 job='ANALYST' or job='CLERK';

 loop

 fetch emp\_var into i;

 exit when emp\_var%notfound;

 dbms\_output.put\_line(rpad(i.empno,10,'

 ')||rpad(i.ename,15,' ')||i.job);

 end loop;

 close emp\_var;

 end;

**OUTPUT**

 7369 SMITH 800

 7900 JAMES 950

|  |  |
| --- | --- |
| TITLE: PL/SQL CURSORS & RECORDS | DATE:PAGE NO: 106 |

 7369 SMITH CLERK

 7788 SCOTT ANALYST

 7876 ADAMS CLERK

 7900 JAMES CLERK

 7902 FORD ANALYST

 7934 MILLER CLERK

150. write a program for weak cursor.

 SQL:>

 declare

 type ref\_cur\_w is ref cursor;

 ref\_var ref\_cur\_w;

 d dept%rowtype;

 e emp%rowtype;

 begin

 open ref\_var for select \* from dept;

 dbms\_output.put\_line(RPAD(' DEPARTMENT

 DETAILS ',90,' ') );

 loop

 fetch ref\_var into d;

 exit when ref\_var%notfound;

 dbms\_output.put\_line(rpad(d.dname,20,'

 ')||rpad(d.deptno,10,' ')||d.loc );

 end loop;

 close ref\_var;

 dbms\_output.put\_line(RPAD(' EMPLOYEES

 DETAILS ',90,' ') );

 open ref\_var for select \* from emp where deptno=10 or

 deptno=20;

 loop

 fetch ref\_var into e;

 exit when ref\_var%notfound;

 dbms\_output.put\_line(rpad(e.empno,10,' ')||

 rpad(e.ename,15,' ')||e.deptno);

 end loop;

 close ref\_var;

 end;

 **OUTPUT**

 DEPARTMENT DETAILS

 ACCOUNTING 10 NEWYORK

|  |  |
| --- | --- |
| TITLE: PL/SQL CURSORS & RECORDS | DATE:PAGE NO: 107 |

 RESEARCH 20 DALLAS

 SALES 30 CHICAGO

 OPERATIONS 40 BOSTON

 EMPLOYEES DETAILS

 7369 SMITH 20

 7566 JONES 20

 7782 CLARK 10

 7788 SCOTT 20

 7839 KING 10

 7876 ADAMS 20

 7902 FORD 20

 7934 MILLER 10

151. write any program for implicit cursor attribute.

 SQL:>

 declare

 begin

 delete emp where deptno=10;

 if(sql%notfound) then

 dbms\_output.put\_line('No records are inserted');

 else

 dbms\_output.put\_line(rpad(sql%rowcount,6,'

 ')||'records are inserted' );

 end if;

 rollback;

 end;

**OUTPUT**

 3 records are inserted

152. WAP to display dname and location for given dept table usin

 PL/SQL records.

 SQL:>

 declare

 type dept\_rec is record(dno number(2), dname

 varchar(20),dloc varchar(20) );

 d dept\_rec;

 begin

 select deptno, dname,loc into d.dno, d.dname,d.dloc

 from dept where deptno=10;

 dbms\_output.put\_line(rpad(d.dno,10,'

|  |  |
| --- | --- |
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 ')||rpad(d.dname,20,' ')||d.dloc);

 end;

 **OUTPUT**

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153. WAP to display hra,da,pf for given employee in emp table

 taking sal as basic with PL/SQL records.

 SQL:>

 declare

 type emp\_rec is

 record( eno number(5),basic number(8,2),hra

 number(8,2),

 da number(8,2), pf number(8,2) );

 e emp\_rec;

 begin

 select empno,sal,sal+0.35,sal+0.25,sal+0.15 into

 e.eno,e.basic,e.hra,e.da,e.pf from emp where

 empno=&empno;

 dbms\_output.put\_line(

 rpad('EMPNO',10,' ')||rpad('BASIC',10,' ')||

 rpad('HRA',10,' ')||rpad('DA',10,' ')||'PF' );

 dbms\_output.put\_line('\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*');

 dbms\_output.put\_line(rpad(e.eno,10,' ')||rpad(e.basic,10,'

 ')||rpad(e.hra,10,' ')||rpad(e.da,10,' ')||e.pf);

 end;

**INPUT**

Enter value for empno: 7566

**OUTPUT**

EMPNO BASIC HRA DA PF

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

7566 2975 2975.35 2975.25 2975.15

|  |  |
| --- | --- |
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154. write a function to find the net salary of given employee.

 SQL:>

 create or replace function net\_fun(vno number)

 return number

 is

 vsal emp.sal%type;

 vcomm emp.comm%type;

 net number(8);

 begin

 select sal,comm into vsal,vcomm from emp where

 empno=vno;

 net:=vsal+nvl(vcomm,0);

 return net;

 end net\_fun;

**OUTPUT**

**function execution**

SQL> select sqrt\_fun(5) from dual;

SQRT\_FUN(5)

-----------

 25

 (or)

SQL> variable n number;

SQL> execute :n:=sqrt\_fun(5);

PL/SQL procedure successfully completed.

SQL> print n;

 N

 ----------

 25

155. write any function which returns experience of given

 employee.

 SQL>

 create or replace function emp\_exp(vno number)

 return number

 is

 vdoj date;

 exp number(8,2);

 begin

 select hiredate into vdoj from emp where empno=vno;

 exp:=round( ( months\_between(sysdate,vdoj) )/12);

 return(exp);

 end emp\_exp;

**OUTPUT**

**function execution:**

SQL> select emp\_exp(7566) from dual;

 EMP\_EXP(7566)

 -------------

 25

SQL> variable p number;

SQL> execute :p:=emp\_exp(7566);

PL/SQL procedure successfully completed.

SQL> print p;

 P

 ----------

 25

156. write any function is returning scalar value.

 SQL:>

 create or replace function even\_odd(n number)

 return number

 is

 begin

 if(mod(n,2)=0) then

 return(0);

 else return(1);

 end if;

 end even\_odd;

Function created.

 **OUTPUT**

 **function execution:**

0 indicates even number;

1 indicates odd number;

 SQL> select even\_odd(7) from dual;

|  |  |
| --- | --- |
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 EVEN\_ODD(7)

 -----------

 1

SQL> var x number;

SQL> execute :x:=even\_odd(7);

PL/SQL procedure successfully completed.

SQL> print x;

 X

 ----------

 1

157. write a procedure to calculate bonus for all employees in emp

 table.

 SQL>

 create or replace function f1(value number)

 return number;

 is

 begin

 return(value \*0.5);

 end;

158. write a package to find the product of two numbers.

 SQL:>

 create or replace package p1 as

 function product1( n1 number,n2 number )

 return number;

 end p1;

Package created.

 create or replace package body p1 as

 function product1( n1 number,n2 number )

 return number

 is

 c number;

 begin

 c:=(n1\*n2);

 return(c);

 end product1;

 end p1;

Package body created.

**OUTPUT**

using package:

SQL> select p1.product1(4,5) from dual;

 P1.PRODUCT1(4,5)

 -----------------------

 20

SQL> var a number;

SQL> execute :a:=p1.product1(4,5);

 PL/SQL procedure successfully completed.

SQL> print a;

 A

 ----------

 20

159. write a package to display manager's data using the cursor.

 SQL:>

 create or replace package p2 as

 procedure mgr\_data(eno in number );

 end p2;

 Package created.

SQL> ed

 Wrote file afiedt.buf

 create or replace package body p2 as

 procedure mgr\_data(eno in number )

 is

 e emp%rowtype;

 cursor c1 is select \* from emp;

 begin

 open c1;

 loop

 fetch c1 into e;

 exit when c1%notfound;

 if(e.job='MANAGER') then

 dbms\_output.put\_line(rpad(e.empno,10,'

 ')||rpad(e.ename,15,' ')||rpad(e.job

 ,15,' ')||e.deptno );

|  |  |
| --- | --- |
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| TITLE: PL/SQL FUNCTIONS, PACKAGES & PROCEDURES | DATE:PAGE NO: 113 |

 end if;

 end loop;

 close c1;

 end mgr\_data;

 end p2;

 Package body created.

**OUTPUT**

SQL> execute p2.mgr\_data(7566);

 7566 JONES MANAGER 20

 7698 BLAKE MANAGER 30

 7782 CLARK MANAGER 10

160. write a package to find the sum and product of two numbers use procedure to find

 the sum and use function to find the product.

 SQL:>

package specification:

 create or replace package p4 as

 function product( n1 in number,n2 in number )

 return number;

 procedure sum( a in number, b in number );

 end p4;

Package created.

package body:

 create or replace package body p4

 as

 function product( n1 in number,n2 in number )

 return number

 is

 n number(6);

 begin

 n:=(n1\*n2);

 return (n);

 end product;

 procedure sum( a in number, b in number )

 is

 x number(6);

 begin

 x:=(a+b);

 dbms\_output.put\_line(' sum of given numbers ='||

 x);

 end sum;

 end p4;

Package body created.

**OUTPUT**

SQL> select p4.product(9,8) from dual;

P4.PRODUCT(9,8)

---------------

 72

SQL> var y number

SQL> execute :y:=p4.product(9,8);

PL/SQL procedure successfully completed.

SQL> print y;

 Y

----------

 72

SQL> execute p4.sum(9,8);

 sum of given numbers =17

161. write a procedure to find the product of two numbers.

A:SQL:>

 create or replace procedure

 product2

 is

 x number(6):=&x;

 y number(6):=&y;

 z number(6);

 begin

 z:=(x\*y);

 dbms\_output.put\_line(' product of given numbers ='||

 z);

 end product2;

 /

Enter value for x: 12

old 4: x number(6):=&x;

new 4: x number(6):=12;

Enter value for y: 13

old 5: y number(6):=&y;

new 5: y number(6):=13;

|  |  |
| --- | --- |
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Procedure created.

**OUTPUT**

SQL> execute product2;

 product of given numbers =156

162. write a procedure to display ename,job,sal from given

 employee.

 SQL:>

 create or replace

 procedure emp\_data(eno in number )

 is

 vname emp.ename%type;

 vjob emp.job%type;

 vsal emp.sal%type;

 vdno emp.deptno%type;

 begin

 select ename,job,sal into vname,vjob,vsal from emp where

 empno=eno;

 dbms\_output.put\_line(rpad(vname,15,' ')||rpad(vjob,15,' ')||

 rpad(vsal,10,' ')|| vdno );

 end emp\_data;

**OUTPUT**

SQL> execute emp\_data(7566);

JONES MANAGER 2975

163. write a procedure to display all employees data using cursor.

 SQL:>

 create or replace

 procedure emp\_details( eno in number )

 is

 cursor c1 is select \* from emp where empno=eno;

 begin

 for e in c1

 loop

 dbms\_output.put\_line( rpad(e.ename,15,' ') ||

 rpad(e.job,15,' ')||

 rpad(e.sal,10,' ')|| e.deptno );

 end loop;

 end emp\_details;

Procedure created.

**OUTPUT**

SQL> execute emp\_details(7788);

 SCOTT ANALYST 3000 20

164. write a procedure to display data of given employee form emp

 table use parameteres to read empno.

 SQL:>

 create or replace

 procedure emp\_details ( eno in number)

 is

 cursor c1 is select \* from emp where empno=eno;

 begin

 for e in c1

 loop

 dbms\_output.put\_line( rpad(e.ename,15,' ') ||

 rpad(e.job,15,' ')| rpad(e.sal,10,' ')|| e.deptno );

 end loop;

 end emp\_details;

Procedure created.

**OUTPUT**

SQL> execute emp\_details(7839);

 KING PRESIDENT 5000 10

165. write a procedure to display net salary of employee through

 out parameter.

 SQL:>

 create or replace procedure net\_proc(vno in number,net

 out n

 is

 vsal emp.sal%type;

 vcomm emp.comm%type;

 begin

 select sal,comm into vsal,vcomm from emp where

 empno=vno;

 net:=vsal+nvl(vcomm,0);

 dbms\_output.put\_line('Net salary of given employee :'||

 net

 end net\_proc;

 /

Procedure created.

**OUTPUT**

SQL> execute net\_proc(7788,:net1);

Net salary of given employee :3000

|  |  |
| --- | --- |
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166. write a procedure to find the experience of the employee

 through in out parameter.

 SQL:>

 create or replace procedure exp\_proc(v in out number)

 is

 vdoj emp.hiredate%type;

 begin

 select hiredate into vdoj from emp where empno=v;

 v:=round( ( months\_between(sysdate,vdoj) )/ 12 );

 dbms\_output.put\_line('Experience of given employe’:'||v);

 end exp\_proc;

 /

Procedure created.

**OUTPUT**

**way of execution:**

SQL> variable v1 number

SQL> begin

 2 :v1:=7902;

 3 end;

 4 /

PL/SQL procedure successfully completed.

SQL> execute exp\_proc(:v1);

 Experience of given employee :25

PL/SQL procedure successfully completed.

SQL> print v1;

 V1

----------

 25

|  |  |
| --- | --- |
| TITLE: PL/SQL TRIGGERS | DATE:PAGE NO: 118 |

167. write a database trigger to stop all DML operartions

 on'ALLEN' record in emp table.

 SQL:>

 create or replace trigger aln\_trg

 before insert or update or delete on emp

 for each row

 begin

 if(:new.ename='ALLEN' or :old.ename='ALLEN')

 then

 raise\_application\_error(-20150,'no dml allow on allen

 record');

 end if;

 end aln\_trg;

 /

Trigger created.

TESTING THE ABOVE TRIGGER:

SQL> update emp set sal=sal+1000

 where ename='ALLEN';

 update emp set sal=sal+1000

 where ename='ALLEN'

 \*

 ERROR at line 1:

ORA-20150: no dml allow on allen record

ORA-06512: at "GUN.ALN\_TRG", line 4

ORA-04088: error during execution of trigger 'GUN.ALN\_TRG'

SQL> DELETE EMP WHERE ENAME='ALLEN';

DELETE EMP WHERE ENAME='ALLEN'

 \*

ERROR at line 1:

ORA-20150: no dml allow on allen record

ORA-06512: at "GUN.ALN\_TRG", line 4

ORA-04088: error during execution of trigger 'GUN.ALN\_TRG'

168. write a database trigger to convert lower case to uppercase

 ename while inserting the data.

 SQL:>

 create or replace trigger convert\_trg

 before insert on emp

 for each row

 begin

|  |  |
| --- | --- |
| TITLE: PL/SQL TRIGGERS | DATE:PAGE NO: 119 |

 :new.ename:=upper(:new.ename);

 end convert\_trg;

 /

Trigger created.

TESTING THE ABOVE TRIGGER:

SQL> insert into emp values (3333,'ganesh','PRESIDENT',7839,SYSDATE,60000,3000,

10);

1 row created.

SQL> SELECT ENAME FROM EMP ;

ENAME

---------------

SMITH

ALLEN

WARD

JONES

MARTIN

BLAKE

CLARK

SCOTT

KING

TURNER

ADAMS

 JAMES

FORD

MILLER

GANESH

15 rows selected.

169. write a trigger to convert uppercase ename to lowercase

 when update operation on sal column of emp table.

 SQL:>

 create or replace trigger

 lower\_trg

 before update of sal on emp

 for each row

 begin

|  |  |
| --- | --- |
| TITLE: PL/SQL TRIGGERS | DATE:PAGE NO: 120 |

 :new.ename:=lower(:old.ename);

 end lower\_trg;

 /

 Trigger created.

Testing the above trigger:

SQL> update emp set sal=10000 where empno

 in(7566,7698);

 2 rows updated.

SQL> select empno,ename,sal from emp;

 EMPNO ENAME SAL

 ---------- --------------- ---------

 7369 SMITH 800

 7499 ALLEN 1600

 7521 WARD 1250

 7566 jones 10000

 7654 MARTIN 1250

 7698 blake 10000

 7782 CLARK 2450

 7788 SCOTT 3000

 7839 KING 5000

 7844 TURNER 1500

 7876 ADAMS 1100

 7900 JAMES 950

 7902 FORD 3000

 7934 MILLER 1300

170. write a trigger which is similar to unique and

 not null constraint on dname column of dept table.

 SQL:>

 create or replace trigger uq\_nn\_trg

 before insert on dept

 for each row

 declare

 x number(5);

 begin

 if(:new.dname is null) then

 raise\_application\_error(-20170,'Null values are not

 allowed');

 end if;

 select count(\*) into x from dept where dname=:new.dname;

|  |  |
| --- | --- |
| TITLE: PL/SQL TRIGGERS | DATE:PAGE NO: 121 |

 if(x>0)then

 raise\_application\_error(-20510,'Duplicate values are not

 valid');

 end if;

 end uq\_nn\_trg;

 /

Trigger created.

TESTING THE ABOVE TRIGGER:

SQL> insert into dept values

 (50,'ACCOUNTING','HYDERABAD' );

 insert into dept values

 (50,'ACCOUNTING','HYDERABAD' )

 \*

ERROR at line 1:

ORA-20510: Duplicate values are not valid

ORA-06512: at "GUN.UQ\_NN\_TRG", line 9

ORA-04088: error during execution of trigger 'GUN.UQ\_NN\_TRG'

171. write a trigger to store old salary and

 modified salary of employee into some other table.

 SQL:>

create table emp\_sal ( empno number(4), ename varchar2(15),

pre\_sal number(8,2), current\_sal number(8,2), modified\_date date );

 create or replace trigger sal\_trg

 after update of sal on emp

 for each row

 begin

 insert into emp\_sal

 values(:old.empno,:old.ename,:old.sal,:new.sal,sysdate);

 end sal\_trg;

Trigger created.

testing the above trigger:

SQL> update emp set sal=10000 where empno in (7839,7902 );

2 rows updated.

|  |  |
| --- | --- |
| TITLE: PL/SQL TRIGGERS | DATE:PAGE NO: 122 |

SQL> select \* from emp\_sal;

172. write a trigger to stop all DML operations emp table

 before 8am after 6pm and saturday and sunday.

 SQL:>

 create or replace trigger sat\_sun\_emp\_trg

 before insert or update or delete on emp

 for each row

 begin

 if( to\_char(sysdate,'DY')='SUN' OR

 to\_char(sysdate,'DY')='SAT' )

 then

 if ( to\_char(sysdate,' HH24 ')< 8 OR to\_char(sysdate,'

 HH24 ') >18 )

 then

 raise\_application\_error(-20200,'No dml operations are

 allowed on emp

 on saturday and sundays below 8 a.m and after 6 p.m ');

 end if;

 end if;

 end sat\_sun\_emp\_trg;

 /

 Trigger created.

 testing the above trigger:

\* Now DAY: SATURDAY TIME: 07:35 A.M. \*

SQL> delete emp

 where empno=7566;

 delete emp where empno=7566

 \*

ERROR at line 1:

ORA-20200: No dml operations are allowed on emp

on saturday and sundays below 8 a.m and after 6 p.m.

ORA-06512: at "GUN.SAT\_SUN\_EMP\_TRG", line 6

ORA-04088: error during execution of trigger 'GUN.SAT\_SUN\_EMP\_TRG'