

DQL:-

1. SELECT STAFF_NAME AS "NAME OF THE STAFF", DESIGN_CODE AS "DESIGNATION CODE" FROM STAFF_MASTER WHERE (HIREDATE < '01-JAN-2003') AND STAFF_SAL BETWEEN 12000 AND 25000;
2. SELECT STAFF_CODE, STAFF_NAME, DEPT_CODE FROM STAFF_MASTER WHERE (MONTHS_BETWEEN(SYSDATE, HIREDATE)) >= 216 ORDER BY HIREDATE DESC;
3. SELECT * FROM STAFF_MASTER WHERE MGR_CODE IS NULL;
4. SELECT * FROM BOOK_MASTER WHERE BOOK_PUB_YEAR BETWEEN 2001 AND 2004 OR BOOK_NAME LIKE '%[&]%' ;
5. SELECT STAFF_NAME FROM STAFF_MASTER WHERE STAFF_NAME LIKE '%_%' ;

SINGLE ROW:-

1. SELECT STAFF_NAME, '\$'||STAFF_SAL AS STAFF_SALARY FROM STAFF_MASTER;
2. SELECT STUDENT_NAME, TO_CHAR(STUDENT_DOB, 'MONTH DD YYYY') AS STUDENT_DOB FROM STUDENT_MASTER WHERE TO_CHAR(STUDENT_DOB, 'DAY') LIKE ('%SATURDAY5') OR TO_CHAR(STUDENT_DOB, 'DAY') LIKE ('%SUNDAY5') ;
3. SELECT STAFF_NAME, ROUND(MONTHS_BETWEEN(SYSDATE, HIREDATE)) AS MONTHS_WORKED FROM STAFF_MASTER;
4. SELECT * FROM STAFF_MASTER WHERE TO_CHAR(HIREDATE, 'DD') BETWEEN 1 AND 15 AND TO_CHAR(HIREDATE, 'MONTH') LIKE '%DECEMBER%' ;
5. SELECT STAFF_NAME, STAFF_SAL CASE WHEN STAFF_SAL >= 50000 THEN 'A' WHEN STAFF_SAL > 25000 AND STAFF_SAL < 50000 THEN 'B' WHEN STAFF_SAL > 10000 AND STAFF_SAL < 25000 THEN 'C' ELSE 'D' END CASE FROM STAFF_MASTER;
6. SELECT STAFF_NAME, TO_CHAR(HIREDATE, 'DD MONTH YYYY') AS HIRE_DATE, TO_CHAR(HIREDATE, 'DAY') AS DAY FROM STAFF_MASTER ORDER BY TO_CHAR(HIREDATE, 'DAY') DESC;
7. SELECT INSTR('MISSISSIPPI', 'I', 2, 3) FROM DUAL;
8. SELECT TO_CHAR(NEXT_DAY(SYSDATE, 'TUESDAY'), 'DD MONTH , YYYY') AS DAY FROM DUAL WHERE NEXT_DAY(SYSDATE, 'TUESDAY') < LAST_DAY(SYSDATE) ;
9. SELECT STUDENT_CODE, STUDENT-NAME, DEPT_CODE DECODE(DEPT_CODE, 10, 'ELECTRICALS', 20, 'ELECTRONICS', 'OTHERS') FROM STUDENT_MASTER;

GROUP FUNCTIONS:-

```
1. SELECT ROUND(MAX(STAFF_SAL)) AS MAXIMUM,ROUND(MIN(STAFF_SAL)) AS  
MINIMUM,ROUND(AVG(STAFF_SAL)) AS AVERAGE FROM STAFF_MASTER;  
2. SELECT DEPTNO,COUNT(DEPTNO) AS TOTAL_NUMBER_OF_MANAGERS FROM  
EMP WHERE JOB  
IN('MANAGER') GROUP BY DEPTNO,JOB;  
3. SELECT DEPTNO,SUM(SAL) FROM EMP  
WHERE JOB NOT IN('MANAGER')  
GROUP BY DEPTNO --HAVING SUM(SAL) > 20000-- ORDER BY DEPTNO;
```

JOINS:-

```
1. SELECT S.STAFF_NAME,D.DEPT_CODE,D.DEPT_NAME,S.STAFF_SAL FROM  
STAFFMASTER S,  
DEPARTMENT_MASTER D WHERE S.DEPT_CODE=D.DEPT_CODE AND STAFF_SAL  
>20000;  
2. SELECT S.STAFF_CODE AS STAFF# ,S.STAFF_NAME AS  
STAFF,D.DEPT_NAME,S.MGR_CODE AS MGR# FROM STAFFMASTER  
S,DEPARTMENT_MASTER D  
WHERE S.DEPT_CODE=D.DEPT_CODE;  
3. SELECT S.STUDENT_CODE,S.STUDENT_NAME,B.BOOK_CODE,BB.BOOK_NAME  
FROM  
STUDENTMASTER S,BOOK_TRANSACTIONS B, BOOK_MASTER BB WHERE  
S.STUDENT_CODE=B.STUDENT_CODE AND  
TO_CHAR(B.BOOK_EXPECTED_RETURN_DATE,'DD MMYYYY') LIKE  
TO_CHAR(SYSDATE,'DD MM YYYY');  
4..SELECTS.STAFF_CODE,S.STAFF_NAME,D.DEPT_NAME,F.DESIGN_NAME,G.BOOK  
_NAME,H.BOOK_ISSUE_DATE  
FROM STAFFMASTER S,DEPARTMENT_MASTER D,DESIGNATION-MASTER  
F,BOOK_MASTER  
F,BOOK_ISSUE_DATE H WHERE  
MONTHS_BETWEEN(TO_CHAR(H.BOOK_ISSUE_DATE,'MM'),TO_CHAR(SYSDATE,'M  
M'))<1;  
6. SELECT STAFF_CODE, STAFF_NAME,STAFF_SAL FROM STAFFMASTER WHERE  
STAFF_SAL<(SELECT  
AVG(STAFF_SAL) FROM STAFFMASTER);  
7 .SELECT AUTHOR,BOOK_NAME FROM BOOK_MASTER GROUP BY AUTHORNAME  
HAVING  
COUNT(AUTHOR)>1;  
8. SELECT S.STAFF_CODE,D.STAFF_NAME,D.DEPT_NAME FROM STAFFMASTER  
S,BOOK_TRANSACTIONS D  
GROUP BY S.STAFF_NAME HAVING COUNT(D.STAFF_NAME)>1;  
9. SELECT S.STUDENT_CODE,S.STUDENT_NAME,D.DEPT_NAME FROM  
STAFFMASTER
```

S,DEPARTMENT_MASTER D GROUP BY S.DEPT_CODE HAVING
 MAX(S.DEPT_CODE);
 10. SELECT S.STAFF_CODE,S.STAFF_NAME,D.DEPT_NAME,F.DESIGN_NAME FROM
 STAFFMASTER S,
 DEPARTMENT_MASTER D,DESIGNATION_MASTER F WHERE
 MONTHS_BETWEEN(TO_CHAR(HIREDATE,'MM') ,TO_CHAR(SYSDATE,'MM'))<3;
 13. SELECT DEPT_CODE,DEPT_NAME,COUNT(S.STAFF_NAME) AS
 NUMBEROFPEOPLE FROM
 STAFFMASTER S,DEPARTMENT_MASTER D GROUP BY DEPT_CODE;

DATABASE OBJECT:-

1. CREATE TABLE CUSTOMER(CUSTOMERID NUMBER(5),CUST_NAME
 VARCHAR2(20),ADDRESS1 VARCHAR2(30),
 ADDRESS2 VARCHAR2(30));
2. ALTER TABLE CUSTOMER RENAME COLUMN CUST_NAME TO
 CUSTOMERNAME;
 ALTER TABLE CUSTOMER MODIFY CUSTOMERNAME VARCHAR2(30) NOT NULL;
3. A ALTER TABLE CUSTOMER ADD GENDER VARCHAR2(1);
 ALTER TABLE CUSTOMER ADD AGE NUMBER(3);
 ALTER TABLE CUSTOMER ADD PHONENO(10);
 B RENAME CUSTOMER TO CUST_TABLE;
4. INSERT INTO
 CUST_TABLE(&CUSTOMERID,'&CUST_NAME','&ADDRESS1','&ADDRESS2','&GENDE
 R','&AGE,&PHONENO);
5. ALTER TABLE CUST_TABLE ADD CONSTRAINTS CUSTID_PRIM PRIMARY KEY
 (CUSTOMERID);
7. ALTER TABLE CUST_TABLE DROP PRIMARY KEY CUSTID_PRIM;
8. ALTER TABLE CUST_TABLE ADD CONSTRAINTS CUSTID_PRIM PRIMARY KEY
 (CUSTOMERID);
9. ALTER TABLE CUST_TABLE DROP PRIMARY KEY CUSTID_PRIM;
 INSERT INTO CUST_TABLE(1002, BECKER, #114 NEW YORK, #114 NEW YORK , M,
 45,431525, 15000.50);
 INSERT INTO CUST_TABLE(1003, NANAPATEKAR, #115 INDIA, #115 INDIA , M, 45,
 431525,20000.50);
10. TRUNCATE TABLE CUST_TABLE;
11. ALTER TABLE ADD E_MAIL VARCHAR2(30);
12. ALTER TABLE CUST_TABLE DROP E_MAIL;
13. CREATE TABLE SUPPLIERS AS SELECT(CUSTOMERID AS
 SUPPID,CUSTOMERNAME AS SNAME,ADDDRESS1 AS
 ADDR1,ADDRESS2 AS ADDR2,PHONENO AS CONTACTNO) FROM CUST_TABLE;
- 14 DROP TABLE SUPPLIERS;
 CREATE TABLE CUSTOMERMASTER(CUSTOMERID(10) PRIMARY
 KEY(CUSTID_PK),CUSTOMERNAME VARCHAR2(30),ADDRESS1

```

VARCHAR2(30),ADDRESS2 VARCHAR2(30),GENDER VARCHAR2(1),AGE
NUMBER(3),PHONENO NUMBER(10));
15 CREATE TABLE ACCOUTNMASTER(CUSTOMERID
NUMBER(5),ACCOUNTNUMBER NUMBER(10) PRIMARY
KEY(ACNO),ACCOUNTTYPE CHAR(3),LEDGERBALANCE NUMBER(10) NOT NULL);
CREATE SEQUENCE SEQ_ANO
MINVALUE 101 MAXVALUE 10000
START WITH 101
INCREMENT BY 1
CACHE 101;
16 ALTER TABLE ACCOUNTMASTER ADD CONSTRAINT ASS_FK FOREIGN
KEY(CUSTOMERID) REFERENCES
CUSTOMERMASTER(CUSTOMERID);
17 INSERT INTO CUSTOMERMASTER VALUES(1000, ALLEN, #115 CHICAGO, #115
CHICAGO, M, 25, 7878776);
INSERT INTO CUSTOMERMASTER VALUES(1001, GEORGE, #116 FRANCE, #116
FRANCE, M, 25, 4345240);
INSERT INTO CUSTOMERMASTER VALUES(1002, BECKER, #114 NEW YORK, #114
NEW YORK, M, 45, 4315250);
18 ALTER TABLE ACCOUNTMASTER ADD CONSTRAINT CK_AC
CHECK(ACCOUNTTYPE='NRI' OR ACCOUNTTYPE='IND');
19 ALTER TABLE ACCOUNTMASTER ADD CONSTRAINT
BALANCE_CHECK(LEDGER BALANCE > 5000);
20 DELETE FROM ACCOUNTMASTER,CUSTOMERTABLE WHERE CUSTOMERID =
1001;
21 CREATE TABLE ACCOUNTDETAILS AS SELECT * FROM ACCOUNTMASTER;
22 CREATE VIEW ACC_VIEW AS
SELECT(CUSTOMERID,CUSTOMERNAME,ACCOUNTNUMBER,ACCOUNTTYPE,LED
GERBALANCE)
FROM ACCOUNTMASTER;
23 CREATE VIEW VACCS_DTLS AS SELECT ACCOUNTTYPE,LEDGERBALANCE
FROM ACCOUNTMASTER WHERE
ACCOUNTTYPE = 'IND' AND LEDGERBALANCE < 10000;
24 CREATE VIEW ACCSVW10 AS SELECT * FROM EMPLOYEE WITH READ ONLY;
REVOKE INSERT,UPDATE,DELETE ON ACCSVW10 FROM USER1;
INSERT INTO ACCSVW10(EID,ENAME,SAL,JOB)
VALUES('SQL*PLUS','USER1','INSERT','DISABLED');
25 CREATE SEQUENCE SEQ_DEPT MINVALUE 40 START WITH 40
INCREMENT BY 10 MAX VALUE 200 CACHE 40;
26 CREATE TABLE DEPARTMENTMASTER(DEPTNO NUMBER(50),DNAME
VARCHAR2(25),LOCATION VARCHAR2(25));
INSERT INTO DEPARTMENTMASTER
VALUES(SEQ_DEPT.NEXTVAL,'MARKETING','NEW DELHI');
INSERT INTO DEPARTMENTMASTER
VALUES(SEQ_DEPT.NEXTVAL,'SALES','CHENNAI');

```

```

INSERT INTO DEPARTMENTMASTER
VALUES(SEQ_DEPT.NEXTVAL,'RESEARCH','BOSTON');
27 DROP SEQUENCE SEQ_DEPT;
28 CREATE INDEX NO_NAME ON EMP(EMPNO); SELECT * FROM EMP;
29 CREATE SYNONYM SYNEMP FOR EMP;
30 SELECT * FROM SYNEMP;
31 CREATE INDEX IDX_EMP_HIREDATE ON EMP(HIREDATE);
32 CREATE SEQUENCE SEQ_EMP MINVALUE 1001 START WITH 1001 INCREMENT
BY 1 CACHE 1001;

```

DML:-

```

1. CREATE TABLE EMPLOYEE AS SELECT * FROM EMP WHERE 1=3;
DESC EMPLOYEE;
SELECT * FROM EMPLOYEE
2 SELECT * FROM EMPLOYEE;
3 UPDATE TABLE EMPLOYEE SET JOB=(SELECT JOB FROM EMPLOYEE WHERE
EMPNO=7788),DEPTNO=(SELECT DEPTNO FROM
EMPLOYEE WHERE EMPNO=7788) WHERE EMPNO=7698;
4 DELETE FROM EMPLOYEE WHERE DEPARTMENTNAME LIKE '%SALES%';
5 UPDATE TABLE EMPLOYEE SET DEPTNO=(SELECT DEPTNO FROM EMPLOYEE
WHERE DEPTNO=7788) WHERE DEPTNO=7698;
6 INSERT INTO EMP (EMPNO,'ENAME','JOB',MGR,'HIREDATE',SAL,COMM,DEPTNO)
VALUES (1000,ALLEN, CLERK,1001,12-JAN-
01, 3000, 2,10);
*
INSERT INTO EMP (EMPNO,'ENAME','JOB',MGR,'HIREDATE',SAL,COMM,DEPTNO)
VALUES (1001,GEORGE, ANALYST, NULL, 08
SEP 92, 5000,0, 10);
*
INSERT INTO EMP (EMPNO,'ENAME','JOB',MGR,'HIREDATE',SAL,COMM,DEPTNO)
VALUES (1002, BECKER, MANAGER, 1000, 4
NOV 92, 2800,4, 20);
*
INSERT INTO EMP (EMPNO,'ENAME','JOB',MGR,'HIREDATE',SAL,COMM,DEPTNO)
VALUES (1003, 'BILL', CLERK, 1002, 4 NOV
92,3000, 0, 20);

```

TRANSACTION:-

1 INSERT INTO CUSTOMERMASTER

(CUSTOMERID,'CUSTOMERNAME','ADDRESS1','ADDRESS2','GENDER',AGE,'PHONENO) VALUES (

6000, JOHN, #115 CHICAGO, #115 CHICAGO, M, 25, 7878776, 10000);

INSERT INTO CUSTOMERMASTER

(CUSTOMERID,'CUSTOMERNAME','ADDRESS1','ADDRESS2','GENDER',AGE,'PHONENO) VALUES

(6001, JACK, #116 FRANCE, #116 FRANCE, M, 25, 434524, 20000);

INSERT INTO CUSTOMERMASTER

(CUSTOMERID,'CUSTOMERNAME','ADDRESS1','ADDRESS2','GENDER',AGE,'PHONENO) VALUES

(6002, JAMES, #114 NEW YORK, #114 NEW YORK, M, 45, 431525, 15000.50);

2 INSERT INTO CUSTOMERMASTER

(CUSTOMERID,'CUSTOMERNAME','ADDRESS1','ADDRESS2','GENDER',AGE,'PHONENO) VALUES (

6000, JOHN, #115 CHICAGO, #115 CHICAGO, M, 25, 7878776, 10000);

INSERT INTO CUSTOMERMASTER

(CUSTOMERID,'CUSTOMERNAME','ADDRESS1','ADDRESS2','GENDER',AGE,'PHONENO) VALUES

(6001, JACK, #116 FRANCE, #116 FRANCE, M, 25, 434524, 20000);

INSERT INTO CUSTOMERMASTER

(CUSTOMERID,'CUSTOMERNAME','ADDRESS1','ADDRESS2','GENDER',AGE,'PHONENO) VALUES

(6002, JAMES, #114 NEW YORK, #114 NEW YORK, M, 45, 431525, 15000.50);

SAVEPOINT P1;

3 INSERT INTO CUSTOMERMASTER

(CUSTOMERID,'CUSTOMERNAME','ADDRESS1','ADDRESS2','GENDER',AGE,'PHONENO) VALUES

(6003, JOHN, #114 CHICAGO, #114 CHICAGO, M, 45, 439525, 19000.60);

4 ROLLBACK P1;