ASSIGNMENT 5

Do the following query on the same table of Assignment No. 4 for 5.1
Answer the following queries:

```
CREATE TABLE CLIENT_MASTER(
CLIENT_NO VARCHAR2(6) PRIMARY KEY CHECK(CLIENT_NO LIKE 'C%'),
NAME VARCHAR2(20) NOT NULL,
CITY VARCHAR2(15),
PINCODE NUMBER(8),
STATE VARCHAR2(15),
BAL_DUE NUMBER(10,2));
INSERT ALL
INTO CLIENT_MASTER VALUES ('C1','ARKA PRATIM','KOLKATA',700059,'WEST
BENGAL',1000.00)
INTO CLIENT_MASTER VALUES
('C2','SOUMYADEEP','MUMBAI',700002,'MAHARASHTRA',2000.00)
INTO CLIENT_MASTER VALUES ('C3','DEBARGHYA','NOIDA',700078,'UTTAR
PRADESH',3000.00)
INTO CLIENT_MASTER VALUES ('C4','PRITHWISH','KOLKATA',800059,'WEST
BENGAL',4000.00)
INTO CLIENT_MASTER VALUES
('C5','SAGNIK','BENGALURU',900059,'KARNATAKA',5000.00)
SELECT * FROM DUAL;
```

1.List the names of all clients having 'a' as the third letter in their names.

```
SELECT NAME FROM CLIENT_MASTER WHERE NAME LIKE '--A%';
```

2.List the clients who stay in a city whose first letter is 'K'.

```
SELECT * FROM CLIENT_MASTER WHERE CITY LIKE 'K%';
```

3.List all the clients who stay in 'Mumbai' or 'Kolkata'.

```
SELECT * FROM CLIENT_MASTER WHERE CITY IN ('MUMBAI','KOLKATA');
```

4.List all the clients whose BalDue is greater than value 1000.

```
SELECT * FROM CLIENT_MASTER WHERE BAL_DUE > 1000;
```

5.List all information from the Sales_Order table for orders placed in the month of June.

```
UPDATE SALES_ORDER SET ORDER_DATE =
(TO_DATE('12-06-23','DD-MM-YYYY'))
WHERE ORDER_NO = 'O001';
```

```
SELECT * FROM SALES_ORDER WHERE EXTRACT(MONTH FROM ORDER_DATE) =
'6';
```

```
SQL> SELECT * FROM CLIENT_MASTER;

CLIENT NAME                 CITY              PINCODE STATE              BAL_DUE
------ -------------------- --------------- ---------- --------------- ----------
C1     ARKAPRATIM           KOLKATA             700059 WEST BENGAL           1000
C2     SOUMODEEP            MUMBAI              700002 MAHARASHTRA           2000
C3     DEBARGHYA            NOIDA               700078 UTTARPRADESH          3000
C4     PRITHWISH            KOLKATA             800059 WEST BENGAL           4000
C5     SAGNIK               BENGALURU           900059 MAHARASHTRA           5000

SQL> SELECT NAME FROM CLIENT_MASTER WHERE NAME LIKE '--A%';

no rows selected

SQL> SELECT * FROM CLIENT_MASTER WHERE CITY LIKE 'K%';

CLIENT NAME                 CITY              PINCODE STATE              BAL_DUE
------ -------------------- --------------- ---------- --------------- ----------
C1     ARKAPRATIM           KOLKATA             700059 WEST BENGAL           1000
C4     PRITHWISH            KOLKATA             800059 WEST BENGAL           4000

SQL> SELECT * FROM CLIENT_MASTER WHERE CITY IN ('MUMBAI','KOLKATA');

CLIENT NAME                 CITY              PINCODE STATE              BAL_DUE
------ -------------------- --------------- ---------- --------------- ----------
C1     ARKAPRATIM           KOLKATA             700059 WEST BENGAL           1000
C2     SOUMODEEP            MUMBAI              700002 MAHARASHTRA           2000
C4     PRITHWISH            KOLKATA             800059 WEST BENGAL           4000

SQL> SELECT * FROM CLIENT_MASTER WHERE BAL_DUE > 1000;

CLIENT NAME                 CITY              PINCODE STATE              BAL_DUE
------ -------------------- --------------- ---------- --------------- ----------
C2     SOUMODEEP            MUMBAI              700002 MAHARASHTRA           2000
C3     DEBARGHYA            NOIDA               700078 UTTARPRADESH          3000
C4     PRITHWISH            KOLKATA             800059 WEST BENGAL           4000
C5     SAGNIK               BENGALURU           900059 MAHARASHTRA           5000

SQL>
```

6.List the order information for Client_no ‘C00001’ and ‘C00003’.

```
SELECT * FROM SALES_ORDER_DETAILS S WHERE S.ORDER_NO IN
(SELECT ORDER_NO FROM SALES_ORDER WHERE CLIENT_NO IN ('C1','C3'));
```

7.List products whose selling price is greater than 500 and less than or equal to 750

```
SELECT * FROM PRODUCT_MASTER WHERE SELL_PRICE > 500 AND SELL_PRICE
<= 750;
```

8.Count the total number of order.

```
SELECT COUNT(ORDER_NO) AS TOTAL_ORDERS FROM SALES_ORDER;
```

9.Determine the maximum and minimum product prices. Rename the output as max_price and min_price respectively.

```
SELECT MAX(SELL_PRICE) max_price, MIN(SELL_PRICE) min_price FROM
PRODUCT_MASTER;
```

```
SQL> SELECT * FROM SALES_ORDER;

ORDER_ CLIENT ORDER_DAT SALESM D DELY_DATE
------ ------ --------- ------ - ---------
O001   C1     13-MAR-24 S1     F
O002   C2     14-MAR-24 S2     E 18-MAR-24
O003   C3     15-MAR-24 S1     F
O004   C4     16-MAR-24 S3     E 20-MAR-24
O005   C5     17-MAR-24 S2     F

SQL> UPDATE SALES_ORDER
  2  SET ORDER_DATE = (TO_DATE('12-06-23','DD-MM-YYYY'))
  3  WHERE ORDER_NO = 'O001';

1 row updated.

SQL> SELECT * FROM SALES_ORDER;

ORDER_ CLIENT ORDER_DAT SALESM D DELY_DATE
------ ------ --------- ------ - ---------
O001   C1     12-JUN-23 S1     F
O002   C2     14-MAR-24 S2     E 18-MAR-24
O003   C3     15-MAR-24 S1     F
O004   C4     16-MAR-24 S3     E 20-MAR-24
O005   C5     17-MAR-24 S2     F

SQL> SELECT * FROM SALES_ORDER WHERE EXTRACT(MONTH FROM ORDER_DATE) = '6';

ORDER_ CLIENT ORDER_DAT SALESM D DELY_DATE
------ ------ --------- ------ - ---------
O001   C1     12-JUN-23 S1     F

SQL>
```

10.Count the number of client who live in Kolkata.

```
SELECT COUNT(CITY) PEOPLE_LIVING_IN_KOLKATA FROM CLIENT_MASTER
WHERE CITY = 'KOLKATA';
```

11.Count the number of products having price less than or equal to 500.

```
SELECT COUNT(SELL_PRICE) PRICE_LESSTHANEQUALTO_500 FROM
PRODUCT_MASTER WHERE SELL_PRICE <= 500;
```

12.List the order number and day on which clients placed their order.

```
SELECT ORDER_NO , TO_CHAR(ORDER_DATE,'DAY') AS DAY FROM
SALES_ORDER;
```

13.List the Order_Date in the format 'DD-Month-YY'.

```
SELECT TO_DATE(ORDER_DATE,'DD-MONTH-YY') AS ORDER_DATE FROM
SALES_ORDER;
```

14.List the date, 20 days after today's date.

```
SELECT SYSDATE + 20 AFTER_20_DAYS FROM DUAL;
```

15.List name of the client who has maximum BalDue.

```
SELECT NAME FROM CLIENT_MASTER WHERE BAL_DUE = (SELECT
MAX(BAL_DUE) FROM CLIENT_MASTER);
```

16.Find the difference between maximum BalDue and minimum BalDue.

```
SELECT MAX(BAL_DUE) - MIN(BAL_DUE) AS DIFF FROM CLIENT_MASTER;
```

17.Add Rs.1000/- with the salary amount of every salesmen.

```
UPDATE SMAN_MAST SET SAL_AMT = SAL_AMT + 1000;
```

```
SQL> SELECT * FROM SALES_ORDER_DETAILS;

ORDER_ PRODUC   QTY_DISP PRODUCT_RATE
------ ------ ---------- ------------
O002   P2             10         20.3
O003   P3              2        200.1
O004   P4              3         30.4
O005   P5              4         40.5

SQL> SELECT * FROM SALES_ORDER_DETAILS S
  2  WHERE S.ORDER_NO IN (
  3     SELECT ORDER_NO FROM SALES_ORDER WHERE CLIENT_NO IN ('C1','C3')
  4  );

ORDER_ PRODUC   QTY_DISP PRODUCT_RATE
------ ------ ---------- ------------
O003   P3              2        200.1

SQL> SELECT * FROM PRODUCT_MASTER;

PRODUC DESCRIPTION     QTY_ON_HAND SELL_PRICE
------ --------------- ----------- ----------
P2     FRUIT                    20         20
P3     ELECTRONICS             200        200
P4     ELECTRONICS              30         30
P5     SERVICE                  40         40

SQL> SELECT * FROM PRODUCT_MASTER WHERE SELL_PRICE > 500 AND SELL_PRICE <= 750;

no rows selected

SQL>
```

```
SQL> SELECT COUNT(ORDER_NO) AS TOTAL_ORDERS FROM SALES_ORDER;

TOTAL_ORDERS
------------
           5

SQL> SELECT MAX(SELL_PRICE) max_price, MIN(SELL_PRICE) min_price FROM PRODUCT_MASTER;

 MAX_PRICE  MIN_PRICE
---------- ----------
       200         20

SQL> SELECT COUNT(CITY) PEOPLE_LIVING_IN_KOLKATA FROM CLIENT_MASTER WHERE CITY = 'KOLKATA';

PEOPLE_LIVING_IN_KOLKATA
------------------------
                       2

SQL> SELECT COUNT(SELL_PRICE) PRICE_LESSTHANEQUALTO_500 FROM PRODUCT_MASTER WHERE SELL_PRICE <= 500;

PRICE_LESSTHANEQUALTO_500
-------------------------
                        4

SQL> SELECT ORDER_NO , TO_CHAR(ORDER_DATE,'DAY') AS DAY FROM SALES_ORDER;

ORDER_ DAY
------ -----------------------------------
O001   SATURDAY
O002   THURSDAY
O003   FRIDAY
O004   SATURDAY
O005   SUNDAY

SQL>
```

```
SQL> SELECT TO_DATE(ORDER_DATE,'DD-MONTH-YY') AS ORDER_DATE FROM SALES_ORDER;

ORDER_DAT
---------
12-JUN-23
14-MAR-24
15-MAR-24
16-MAR-24
17-MAR-24

SQL> SELECT SYSDATE + 20 AFTER_20_DAYS FROM DUAL;

AFTER_20_
---------
06-APR-24

SQL> SELECT NAME FROM CLIENT_MASTER WHERE BAL_DUE = (SELECT MAX(BAL_DUE) FROM CLIENT_MASTER);

NAME
--------------------
SAGNIK

SQL> SELECT MAX(BAL_DUE) - MIN(BAL_DUE) AS DIFF FROM CLIENT_MASTER;

      DIFF
----------
      4000

SQL>
```

```
SQL> SELECT * FROM SMAN_MAST;

SALESM SALESMAN_NAME        CITY                 PINCODE STATE                SAL_AMT
------ -------------------- -------------------- ---------- -------------------- ----------
S1     RAMU                 Pune                   700059 WEST BENGAL            2000.9
S2     UPAL                 Pune                   700002 MAHARASHTRA            1000.9
S3     SHYAM                Pune                   900059 MAHARASHTRA            3000.9
S4     JADU                 Pune                   700078 UTTARPRADESH           4000.9
S5     MODHU                Pune                   700059 WEST BENGAL            5000.9

SQL> UPDATE SMAN_MAST SET SAL_AMT = SAL_AMT + 1000;

5 rows updated.

SQL> SELECT * FROM SMAN_MAST;

SALESM SALESMAN_NAME        CITY                 PINCODE STATE                SAL_AMT
------ -------------------- -------------------- ---------- -------------------- ----------
S1     RAMU                 Pune                   700059 WEST BENGAL            3000.9
S2     UPAL                 Pune                   700002 MAHARASHTRA            2000.9
S3     SHYAM                Pune                   900059 MAHARASHTRA            4000.9
S4     JADU                 Pune                   700078 UTTARPRADESH           5000.9
S5     MODHU                Pune                   700059 WEST BENGAL            6000.9

SQL>
```

Create the following tables and insert the values then do the queries for 5.2 employee:
emp_no, name, dob, sex, address, salary
company: comp_no, name, address
works: emp_no, comp_no

```
CREATE TABLE EMPLOYEE (
EMP_NO VARCHAR2(8) PRIMARY KEY CHECK(EMP_NO LIKE 'E%'),
NAME VARCHAR2(20) NOT NULL,
DOB DATE NOT NULL,
SEX CHAR(1) CHECK(SEX IN ('M','F')),
ADDRESS VARCHAR2(20) NOT NULL,
SALARY NUMBER(8) NOT NULL);
```

```
SQL> CREATE TABLE EMPLOYEE (
  2  EMP_NO NUMBER PRIMARY KEY,
  3  NAME VARCHAR2(20) NOT NULL,
  4  DOB DATE NOT NULL,
  5  SEX CHAR(1) CHECK(SEX LIKE '[MF]'),
  6  ADDRESS VARCHAR2(20) NOT NULL,
  7  SALARY NUMBER(8) NOT NULL
  8  );

Table created.

SQL> DESC EMPLOYEE;
 Name                                                                                    Null?    Type
 --------------------------------------------------------------------------------------- -------- ----------------
 EMP_NO                                                                                  NOT NULL NUMBER
 NAME                                                                                    NOT NULL VARCHAR2(20)
 DOB                                                                                     NOT NULL DATE
 SEX                                                                                              CHAR(1)
 ADDRESS                                                                                 NOT NULL VARCHAR2(20)
 SALARY                                                                                  NOT NULL NUMBER(8)

SQL>
```

```
CREATE TABLE COMPANY (
COMP_NO VARCHAR2(8) PRIMARY KEY CHECK(COMP_NO LIKE 'C%'),
NAME VARCHAR2(20) NOT NULL,
ADDRESS VARCHAR2(20) NOT NULL);
```

```
SQL> CREATE TABLE COMPANY (
  2  COMP_NO NUMBER PRIMARY KEY,
  3  NAME VARCHAR2(20) NOT NULL,
  4  ADDRESS VARCHAR2(20) NOT NULL
  5  );

Table created.

SQL> DESC COMPANY;
 Name                                                                                    Null?    Type
 --------------------------------------------------------------------------------------- -------- ----------------
 COMP_NO                                                                                 NOT NULL NUMBER
 NAME                                                                                    NOT NULL VARCHAR2(20)
 ADDRESS                                                                                 NOT NULL VARCHAR2(20)

SQL>
```

```
CREATE TABLE WORKS (
EMP_NO VARCHAR2(8) NOT NULL,COMP_NO VARCHAR2(8) NOT NULL,
CONSTRAINT FK1 FOREIGN KEY (EMP_NO) REFERENCES EMPLOYEE(EMP_NO) ON
DELETE CASCADE,CONSTRAINT FK2 FOREIGN KEY (COMP_NO) REFERENCES
COMPANY(COMP_NO) ON DELETE CASCADE);
```

```
SQL> CREATE TABLE WORKS (
  2  EMP_NO NUMBER,
  3  COMP_NO NUMBER,
  4  CONSTRAINT FK1 FOREIGN KEY (EMP_NO) REFERENCES EMPLOYEE(EMP_NO) ON DELETE CASCADE,
  5  CONSTRAINT FK2 FOREIGN KEY (COMP_NO) REFERENCES COMPANY(COMP_NO) ON DELETE CASCADE
  6  );

Table created.

SQL> DESC WORKS;
 Name                                                                                    Null?    Type
 --------------------------------------------------------------------------------------- -------- ----------------
 EMP_NO                                                                                           NUMBER
 COMP_NO                                                                                          NUMBER

SQL>
```

```
INSERT ALL
INTO EMPLOYEE
VALUES('E1','ARKA',TO_DATE('21-10-2002','DD-MM-YYYY'),'M','AC-13',50000)
INTO EMPLOYEE
VALUES('E2','RAMU',TO_DATE('10-02-2002','DD-MM-YYYY'),'M','BD-13',20000)
```

```
INTO EMPLOYEE
VALUES('E3','JOHN',TO_DATE('02-06-2002','DD-MM-YYYY'),'M','EF-13',10000)
INTO EMPLOYEE
VALUES('E4','SIDD',TO_DATE('11-12-2002','DD-MM-YYYY'),'M','GD-13',30000)
INTO EMPLOYEE
VALUES('E5','ROSE',TO_DATE('01-09-2002','DD-MM-YYYY'),'F','CC-13',40000)
SELECT * FROM DUAL;
```

```
SQL> INSERT ALL
  2  INTO EMPLOYEE VALUES('E1','ARKA',TO_DATE('21-10-2002','DD-MM-YYYY'),'M','AC-13',50000)
  3  INTO EMPLOYEE VALUES('E2','RAMU',TO_DATE('10-02-2002','DD-MM-YYYY'),'M','BD-13',20000)
  4  INTO EMPLOYEE VALUES('E3','JOHN',TO_DATE('02-06-2002','DD-MM-YYYY'),'M','EF-13',10000)
  5  INTO EMPLOYEE VALUES('E4','SIDD',TO_DATE('11-12-2002','DD-MM-YYYY'),'M','GD-13',30000)
  6  INTO EMPLOYEE VALUES('E5','ROSE',TO_DATE('01-09-2002','DD-MM-YYYY'),'F','CC-13',40000)
  7  SELECT * FROM DUAL;

5 rows created.

SQL> SELECT * FROM EMPLOYEE;

EMP_NO   NAME                 DOB       S ADDRESS                SALARY
-------- -------------------- --------- - -------------------- ----------
E1       ARKA                 21-OCT-02 M AC-13                   50000
E2       RAMU                 10-FEB-02 M BD-13                   20000
E3       JOHN                 02-JUN-02 M EF-13                   10000
E4       SIDD                 11-DEC-02 M GD-13                   30000
E5       ROSE                 01-SEP-02 F CC-13                   40000

SQL>
```

```
  5  INTO COMPANY VALUES('C00004','TECHNO INDIA','EF-17')
  6  INTO COMPANY VALUES('C00005','TCS','CC-2')
  7  SELECT * FROM DUAL;

5 rows created.

SQL> SELECT * FROM COMPANY;

COMP_NO  NAME                 ADDRESS
-------- -------------------- --------------------
C00001   ABC                  SD-21
C00002   DEF                  QW-24
C00003   CLIFFORD CORP        EE-34
C00004   TECHNO INDIA         EF-17
C00005   TCS                  CC-2

SQL>
```

```
INSERT ALL
INTO WORKS VALUES('E1','C00001')
INTO WORKS VALUES('E2','C00002')
INTO WORKS VALUES('E3','C00003')
INTO WORKS VALUES('E4','C00004')
INTO WORKS VALUES('E5','C00005')
SELECT * FROM DUAL;
```

```
SQL> INSERT ALL
  2  INTO WORKS VALUES('E1','C00001')
  3  INTO WORKS VALUES('E2','C00002')
  4  INTO WORKS VALUES('E3','C00003')
  5  INTO WORKS VALUES('E4','C00004')
  6  INTO WORKS VALUES('E5','C00005')
  7  SELECT * FROM DUAL;

5 rows created.
```

1.List the employees who work for company ‘C00002’

```
SELECT * FROM EMPLOYEE E WHERE E.EMP_NO IN (SELECT EMP_NO FROM
WORKS WHERE COMP_NO = 'C00002');
```

2.List the employees who work for company ‘C00004’

```
SELECT * FROM EMPLOYEE E WHERE E.EMP_NO IN (SELECT EMP_NO FROM
WORKS WHERE COMP_NO = 'C00004');
```

3.List the employees who work for Clifford Corp

```
SELECT * FROM EMPLOYEE E WHERE E.EMP_NO IN (
SELECT EMP_NO FROM WORKS W WHERE W.COMP_NO IN (SELECT COMP_NO FROM
COMPANY WHERE NAME = 'CLIFFORD CORP'));
```

4.List the employees whose name ends with ‘a’

```
SELECT NAME FROM EMPLOYEE WHERE NAME LIKE '%A';
```

5.List the employees born between 1999 and 2011

```
SELECT NAME FROM EMPLOYEE WHERE EXTRACT(YEAR FROM DOB) BETWEEN
'1999' AND '2011';
```

```
SQL> SELECT * FROM EMPLOYEE E WHERE E.EMP_NO IN (SELECT EMP_NO FROM WORKS WHERE COMP_NO = 'C00002');

EMP_NO   NAME                 DOB       S ADDRESS                SALARY
-------- -------------------- --------- - -------------------- ----------
E2       RAMU                 10-FEB-02 M BD-13                   20000

SQL> SELECT * FROM EMPLOYEE E WHERE E.EMP_NO IN (SELECT EMP_NO FROM WORKS WHERE COMP_NO = 'C00004');

EMP_NO   NAME                 DOB       S ADDRESS                SALARY
-------- -------------------- --------- - -------------------- ----------
E4       SIDD                 11-DEC-02 M GD-13                   30000

SQL> SELECT * FROM EMPLOYEE E WHERE E.EMP_NO IN (
  2  SELECT EMP_NO FROM WORKS W WHERE W.COMP_NO IN (SELECT COMP_NO FROM COMPANY WHERE NAME = 'CLIFFORD CORP')
  3  );

EMP_NO   NAME                 DOB       S ADDRESS                SALARY
-------- -------------------- --------- - -------------------- ----------
E3       JOHN                 02-JUN-02 M EF-13                   10000

SQL> SELECT NAME FROM EMPLOYEE WHERE NAME LIKE '%A';

NAME
--------------------
ARKA

SQL> SELECT NAME FROM EMPLOYEE WHERE EXTRACT(YEAR FROM DOB) BETWEEN '1999' AND '2011';

NAME
--------------------
ARKA
RAMU
JOHN
SIDD
ROSE

SQL>
```