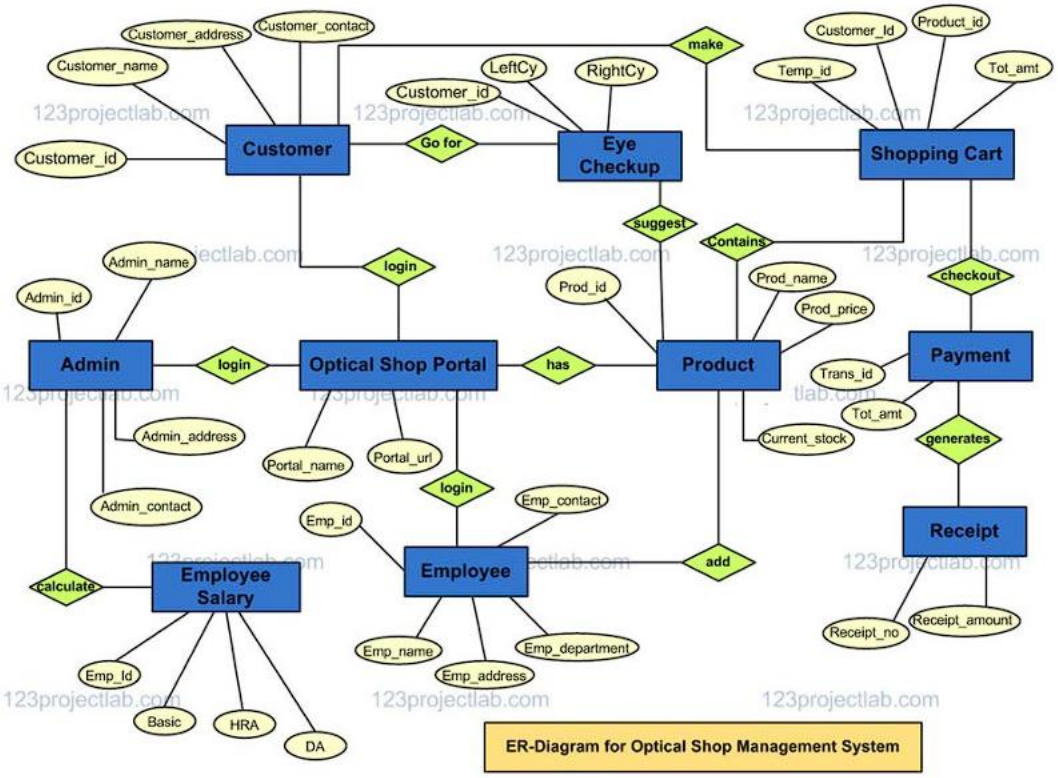
OPTICAL SHOP MANAGEMENT SYSTEM

Create a database for optical-shop-management-system by referring the ER diagram

ER-DIAGRAM



ER Diagram for Optical Shop Management System

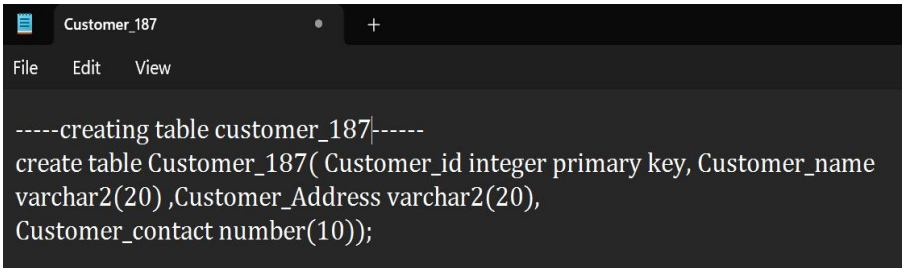
TABLES ARE

Customer_187(Customer_id(P.K)_,Customer_name ,Customer_address , Customer_contact)
Eye_Checkup_187(Leftcy ,Rightcy , Customer_id(F.K))
Shopping_Cart_187(Temp_id(P.K) ,tot_amt ,product_id ,Customer_id(F.K))
Optical_shop_portal_187(Portal_name ,Portal_url(P.K))
Admin_187(Admin_id (P.K) ,Admin_name ,Admin_Address ,Admin_Contact)
Employee_187(Emp_id(P.K) ,Emp_contact ,Emp_address, Emp_department)
Employee_Salary_187(Emp_id(F.K) ,basic ,hra, da)
Product_187(Prod_id(P.K) ,Prod_name ,Prod_price , Current_stock ,Emp_id(F.K) ,Temp_id(F.K))
Payment_187(Trans_id(P.K) ,Tot_amt)
Receipt_187(Receipt_no(P.K) , Receipt_amt)

Q1;Convert the ER diagram to the Corresponding Tables. Use the appropriate primary key, NOT NULL and Check Constraints for each table. Write the above SQL code for the creation of all these table in a sql file and name as table__123.sql.

FOR TABLE- CUSTOMER_187

```
SQL> ed C:\Users\KIIT\Desktop\DBMS_PROJECT\Customer_187
```




```
SQL> @C:\Users\KIIT\Desktop\DBMS_PROJECT\Customer_187

Table created.
```

```
SQL> desc Customer_187
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 CUSTOMER_ID                               NOT NULL NUMBER(38)
 CUSTOMER_NAME                                      VARCHAR2(20)
 CUSTOMER_ADDRESS                                   VARCHAR2(20)
 CUSTOMER_CONTACT                                   NUMBER(10)

SQL>
```

FOR TABLE- EYE_CHECKUP_187

```
SQL>  ed C:\Users\KIIT\Desktop\DBMS_PROJECT\Eye_Checkup_187
```

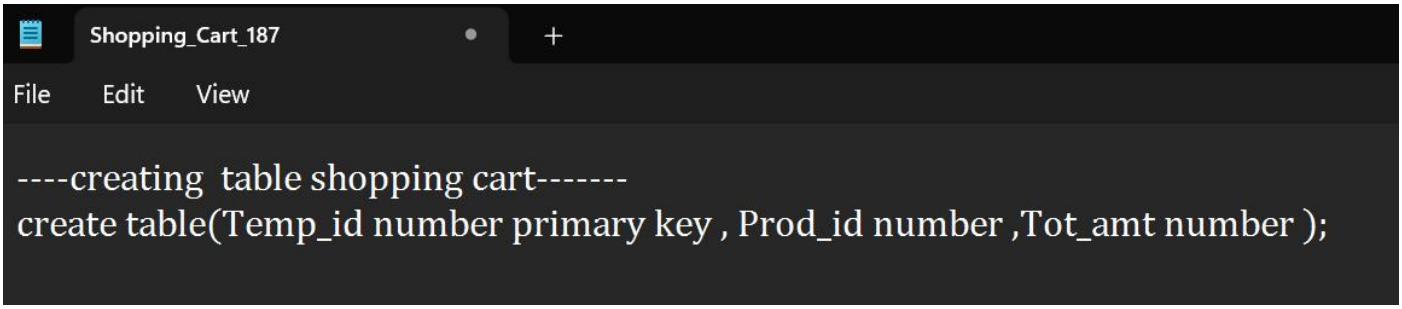

```
SQL> @C:\Users\KIIT\Desktop\DBMS_PROJECT\Eye_Checkup_187

Table created.
```

```
SQL> desc eye_checkup_187;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 LEFTCY                                             VARCHAR2(20)
 RIGHTCY                                            VARCHAR2(20)
 CUSTOMER_ID                               NOT NULL NUMBER(38)

SQL> desc
```

(after altering)

FOR TABLE- Shopping_Cart_187

```
SQL>  ed C:\Users\KIIT\Desktop\DBMS_PROJECT\Shopping_cart_187
```




```
SQL> @C:\Users\KIIT\Desktop\DBMS_PROJECT\Shopping_cart_187

Table created.
```

```
SQL> desc shopping_cart_187
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 TEMP_ID                                   NOT NULL NUMBER(38)
 PROD_ID                                            NUMBER(38)
 TOT_AMT                                            NUMBER(38)
 CUSTOMER_ID                                        NUMBER(38)

SQL>
```

FOR TABLE- Optical_Shop_Portal_187

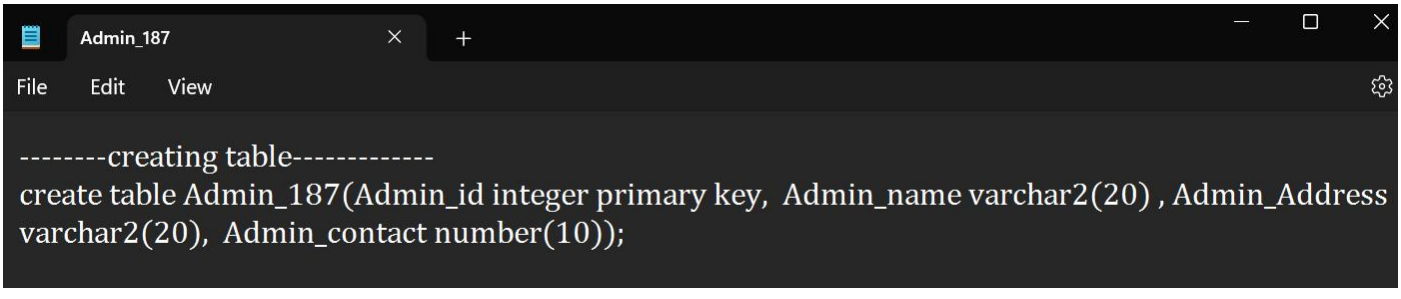
```
SQL>  ed C:\Users\KIIT\Desktop\DBMS_PROJECT\Optical_Shop_Portal_187
```


```
SQL> @C:\Users\KIIT\Desktop\DBMS_PROJECT\Optical_Shop_Portal_187

Table created.
```

```
SQL> desc optical_shop_portal;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 PORTAL_NAME                                        VARCHAR2(20)
 PORTAL_URL                                         VARCHAR2(20)

SQL>
```

FOR TABLE- Admin_187

```
SQL> ed C:\Users\KIIT\Desktop\DBMS_PROJECT\Admin_187
```

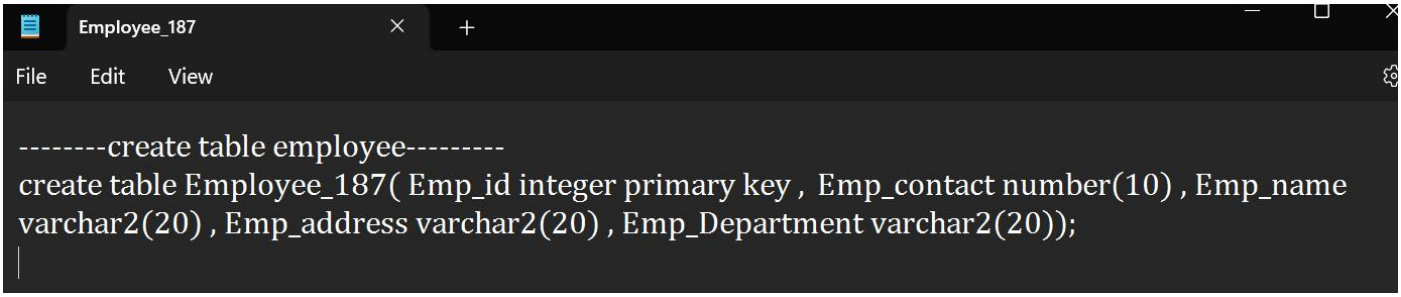


```
SQL> @C:\Users\KIIT\Desktop\DBMS_PROJECT\Admin_187

Table created.
```

```
SQL> desc Admin_187;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 ADMIN_ID                                  NOT NULL NUMBER(38)
 ADMIN_NAME                                         VARCHAR2(20)
 ADMIN_ADDRESS                                      VARCHAR2(20)
 ADMIN_CONTACT                                      NUMBER(10)

SQL>
```

FOR TABLE- Employee_187

```
SQL> ed C:\Users\KIIT\Desktop\DBMS_PROJECT\Employee_187
```

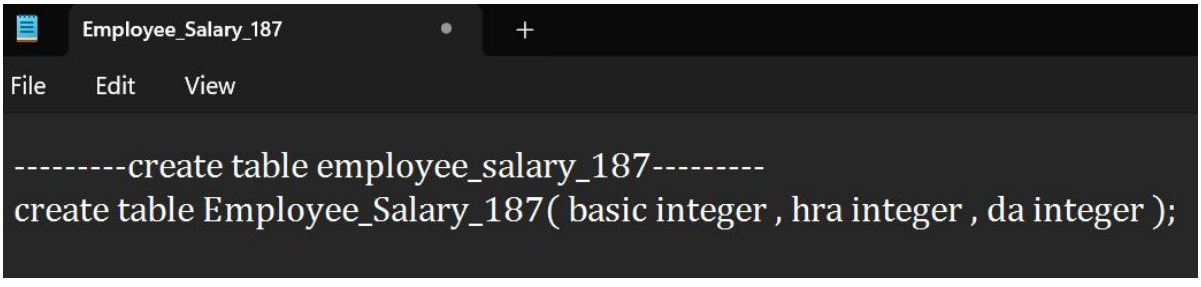



```
SQL> @C:\Users\KIIT\Desktop\DBMS_PROJECT\Employee_187

Table created.
```

```
SQL> desc employee_187;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 EMP_ID                                    NOT NULL NUMBER(38)
 EMP_CONTACT                                        NUMBER(10)
 EMP_NAME                                           VARCHAR2(20)
 EMP_ADDRESS                                        VARCHAR2(20)
 EMP_DEPARTMENT                                     VARCHAR2(20)

SQL> D
```

FOR TABLE- Employee_Salary_187

```
SQL> ed C:\Users\KIIT\Desktop\DBMS_PROJECT\Employee_Salary_187
```



```
SQL> @C:\Users\KIIT\Desktop\DBMS_PROJECT\Employee_Salary_187

Table created.
```

FOR TABLE- Product_187

```
SQL> ed C:\Users\KIIT\Desktop\DBMS_PROJECT\Product_187
```

Product_187

File Edit View

```
-------create table Product_187--------
create table Product_187(Prod_id integer primary key , Prod_name varchar2(20) , Prod_price
number(5) , current_stock number(10));
```

```
SQL> @C:\Users\KIIT\Desktop\DBMS_PROJECT\Product_187

Table created.
```

```
SQL> desc product_187;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 PROD_ID                                   NOT NULL NUMBER(38)
 PROD_NAME                                          VARCHAR2(20)
 PROD_PRICE                                         NUMBER(5)
 CURRENT_STOCK                                      NUMBER(10)

SQL>
```

FOR TABLE- Receipt_187

```
SQL>  ed C:\Users\KIIT\Desktop\DBMS_PROJECT\Receipt_187

SQL> @C:\Users\KIIT\Desktop\DBMS_PROJECT\Receipt_187

Table created.
```

```
SQL> desc receipt_187
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 RECEIPT_NO                                NOT NULL NUMBER(38)
 RECEIPT_AMT                                        NUMBER(38)

SQL> S
```

FOR TABLE- Payment_187

```
SQL>  ed C:\Users\KIIT\Desktop\DBMS_PROJECT\Payment_187

SQL> @C:\Users\KIIT\Desktop\DBMS_PROJECT\Payment_187

Table created.
```

```
--------create table payment_187-------
create table payment_187(Trans_id integer primary key ,tot_amt integer );
```

```
SQL> desc payment_187;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 TRANS_ID                                  NOT NULL NUMBER(38)
 TOT_AMT                                            NUMBER(38)

SQL>
```

Q2; Using ALTER COMMAND, add the foreign Key to create relation between two table. Write the above SQL code for the addition of foreign key table in a sql file and name as table__FK_123.sql.

```
SQL> Alter Table Eye_Checkup_187
  2  ADD FOREIGN KEY
  3  (Customer_id) References Customer_187(customer_id);

Table altered.
```

```
SQL> alter table shopping_cart_187
  2  add foreign key
  3  (customer_id) references customer_187(customer_id);

Table altered.


SQL> alter table shopping_cart_187
  2  add foreign key
  3  (prod_id) references product_187(prod_id);

Table altered.



SQL> alter table Payment_187
  2  add foreign key
  3  (tot_amt) references shopping_cart_187(tot_amt);

Table altered.
```

Q3:Insert 5 records each for each table. Write the SQL code for the Insertion of data to all these table in a sql file and name as Insert_123.sql

Customer_187

```
insert into customer_187
values(102,'B','X',1234);
insert into customer_187
values(103,'C','Y',1234);
insert into customer_187
values(104,'D','Z',1234);
insert into customer_187
values(105,'B','X',1234);
insert into customer_187
values(106,'B','X',1234);
```

```
1 row created.


1 row created.


1 row created.


1 row created.


1 row created.
```

```
SQL> select * from customer_187
  2  ;

CUSTOMER_ID CUSTOMER_NAME        CUSTOMER_ADDRESS     CUSTOMER_CONTACT
----------- -------------------- -------------------- ----------------
        101 A                    x                             34561
        102 B                    X                              1234
        103 C                    Y                              1234
        104 D                    Z                              1234
        105 B                    X                              1234
        106 B                    X                              1234

6 rows selected.
```

TABLE -EYECHECKUP_187

```
SQL> @C:\Users\KIIT\Desktop\DBMS_PROJECT\Eye_Checkup_187
```

```
1 row created.


1 row created.


1 row created.


1 row created.
```

```
SQL> select* from eye_checkup_187;

LEFTCY               RIGHTCY              CUSTOMER_ID
-------------------- -------------------- -----------
p                    q                            101
r                    s                            102
t                    u                            103
v                    w                            104
m                    n                            105
```

TABLE-PRODUCT_187

```
SQL> select * from product_187;

   PROD_ID PROD_NAME            PROD_PRICE CURRENT_STOCK
---------- -------------------- ---------- -------------
        11 pencil                       10            50
        12 eraser                       15            35
        13 scale                        12            20
        14 sharpner                      7            67
        15 pen                          10            30

SQL> insert n
```

Table Shopping_Cart__187

```
SQL> select * from Shopping_Cart__187;

   TEMP_ID    PROD_ID    TOT_AMT CUSTOMER_ID
---------- ---------- ---------- -----------
         1         12          3         102
         2         11          2         104
         3         15          4         101
         4         13          2         105
         5         14          1         103
```

Table Payment__187

```
  TRANS_ID    TOT_AMT
---------- ----------
       111          3
       222          2
       333          4
       444          2
       555          1
```

Optical_shop_portal_187

```
SQL>  ed C:\Users\KIIT\Desktop\DBMS_PROJECT\optical_shop_portal_187

SQL>  @C:\Users\KIIT\Desktop\DBMS_PROJECT\optical_shop_portal_187

1 row created.


1 row created.


1 row created.


1 row created.


1 row created.

SQL> select * from optical_shop_portal;

PORTAL_NAME          PORTAL_URL
-------------------- --------------------
abs                  wwwaxe
abc                  wwwaxd
absd                 wwwaxc
abss                 wwwaxb
ab                   wwwaxa
```

TABLE -ADMIN_187

```
SQL> ed C:\Users\KIIT\Desktop\DBMS_PROJECT\admin_187

SQL> @ C:\Users\KIIT\Desktop\DBMS_PROJECT\admin_187

1 row created.


1 row created.


1 row created.


1 row created.


1 row created.

SQL> select * from admin_187
  2  ;

  ADMIN_ID ADMIN_NAME          ADMIN_ADDRESS        ADMIN_CONTACT
---------- ------------------- -------------------- -------------
      1100 A                   XYZ                            789
      2200 B                   XY                            7899
      3300 A                   XYZD                         78988
      4400 C                   XYZB                          7899
      5500 C                   XYZU                             7

SQL>
```

Table-employee_187

```
1 row created.

SQL> select * from employee_187
  2  ;

    EMP_ID EMP_CONTACT EMP_NAME             EMP_ADDRESS
---------- ----------- -------------------- --------------------
EMP_DEPARTMENT
--------------------
        99       11234 A                    ABSC
cse

        98       11672 B                    ABSC
it

        97        1152 C                    ABSC
cse


    EMP_ID EMP_CONTACT EMP_NAME             EMP_ADDRESS
---------- ----------- -------------------- --------------------
EMP_DEPARTMENT
--------------------
        96       11542 D                    ABSC
cse

        95      115622 E                    ABSC
it


SQL>
```

Employee_salary_187

```
1 row created.

SQL> ed C:\Users\KIIT\Desktop\DBMS_PROJECT\EMPLOYEE_SALARY_187

SQL> @C:\Users\KIIT\Desktop\DBMS_PROJECT\EMPLOYEE_SALARY_187

1 row created.


1 row created.


1 row created.


1 row created.


1 row created.

SQL> select * from employee_salary_187
  2  ;

     BASIC        HRA         DA      EMPID
---------- ---------- ---------- ----------
     34000       6880        234         99
     37000       6880        234         98
     36000       6880       2366         97
    366000       6880        234         95
     34000       6880        234         99
     37000       6880        234         98
     36000       6880       2366         97
     34000       6880        234         96
    366000       6880        234         95

9 rows selected.

SQL> _
```

Table - receipt_187

```
1 row created.

SQL> select * from receipt_187;

RECEIPT_NO RECEIPT_AMT
---------- -----------
      1234       78000
      5678      780670
      9112       78000
     14234       78890
     12554       78550

SQL>
```

Q4Write any 5 subqueries and all types of join for the above table. Write the above SQL statement into Sub_Join_123.sql.

SUBQUERIES

I)TO DISPLAY A's left checkup and right checkup

```
SQL> select leftcy ,rightcy from eye_checkup_187 where customer_id =(select customer_id from customer_187 where customer
_name='A');

LEFTCY               RIGHTCY
-------------------- --------------------
p                    q
```

II)DISPLAY C's(customer_name) tot_amt

```
SQL> select tot_amt from shopping_cart__187 where customer_id=(select customer_id from customer_187 where customer_name = 'C');

   TOT_AMT
----------
         1
```

Iii)TO DISPLAY THE CUSTOMER DETAILS OF CUSTOMER,HAS LEFTCY =’P’ AND RIGHTCY =’Q’

```
SQL> select customer_name,customer_address,customer_contact from customer_187 where customer_id=(select customer_id from Eye_Checkup_187 where leftcy='p' and rightcy ='q');

CUSTOMER_NAME        CUSTOMER_ADDRESS     CUSTOMER_CONTACT
-------------------- -------------------- ----------------
A                    x                             34561
```

Iv)DISPLAY CUSTOMER_CONTACT from CUSTOMER_187

```
SQL> select customer_contact from customer_187 where customer_id =(Select customer_id from EYE_CHECKUP_187 where RIGHTCY ='s');

CUSTOMER_CONTACT
----------------
            1234
```

DISPLAY D’s(customer_name) tot_amt

```
SQL> select tot_amt from shopping_cart__187 where customer_id = (Select customer_id from customer_187 where customer_name ='D');

   TOT_AMT
----------
         2
```

INNER JOIN

```
SQL> set pagesize 30;
SQL> select * from Shopping_cart__187 inner join product_187 on Shopping_cart__187.prod_id=product_187.prod_id;

   TEMP_ID    PROD_ID    TOT_AMT CUSTOMER_ID    PROD_ID PROD_NAME
---------- ---------- ---------- ----------- ---------- --------------------
PROD_PRICE CURRENT_STOCK
---------- -------------
         2         11          2         104         11 pencil
        10            50

         1         12          3         102         12 eraser
        15            35

         4         13          2         105         13 scale
        12            20

         5         14          1         103         14 sharpner
         7            67

         3         15          4         101         15 pen
        10            30
```

LEFT JOIN

```
SQL> select * from customer_187 left join eye_checkup_187 on customer_187.customer_id = eye_checkup_187.customer_id;

CUSTOMER_ID CUSTOMER_NAME        CUSTOMER_ADDRESS     CUSTOMER_CONTACT
----------- -------------------- -------------------- ----------------
LEFTCY              RIGHTCY             CUSTOMER_ID
------------------- ------------------- -----------
        101 A                   x                             34561
p                   q                           101

        102 B                   X                              1234
r                   s                           102

        103 C                   Y                              1234
t                   u                           103

        104 D                   Z                              1234
v                   w                           104

        105 B                   X                              1234
m                   n                           105

        106 B                   X                              1234
```

RIGHT JOIN

```
SQL> select * from payment__187 right join shopping_cart__187 on payment__187.tot_amt = shopping_cart__187.tot_amt;

  TRANS_ID    TOT_AMT    TEMP_ID    PROD_ID    TOT_AMT CUSTOMER_ID
---------- ---------- ---------- ---------- ---------- -----------
       111          3          1         12          3         102
       222          2          4         13          2         105
       222          2          2         11          2         104
       333          4          3         15          4         101
       444          2          4         13          2         105
       444          2          2         11          2         104
       555          1          5         14          1         103

7 rows selected.
```

OUTER JOIN

```
SQL> select * from customer_187 full outer join eye_checkup_187 on customer_187.customer_id = eye_checkup_187.customer_i
d;

CUSTOMER_ID CUSTOMER_NAME        CUSTOMER_ADDRESS     CUSTOMER_CONTACT
----------- -------------------- -------------------- ----------------
LEFTCY              RIGHTCY             CUSTOMER_ID
------------------- ------------------- -----------
        101 A                   x                             34561
p                   q                           101

        102 B                   X                              1234
r                   s                           102

        103 C                   Y                              1234
t                   u                           103

        104 D                   Z                              1234
v                   w                           104

        105 B                   X                              1234
m                   n                           105

        106 B                   X                              1234


6 rows selected.
```

CROSS JOIN

```
SQL> Select * from employee_187 cross join employee_salary_187;

    EMP_ID EMP_CONTACT EMP_NAME             EMP_ADDRESS
---------- ---------- -------------------- --------------------
EMP_DEPARTMENT           BASIC        HRA         DA      EMPID
------------------- ---------- ---------- ---------- ----------
        99       11234 A                  ABSC
cse                       34000       6880        234         99

        99       11234 A                  ABSC
cse                       37000       6880        234         98

        99       11234 A                  ABSC
cse                       36000       6880       2366         97

        99       11234 A                  ABSC
cse                      366000       6880        234         95

        99       11234 A                  ABSC
cse                       34000       6880        234         99

        99       11234 A                  ABSC
cse                       37000       6880        234         98

        99       11234 A                  ABSC
cse                       36000       6880       2366         97

        99       11234 A                  ABSC
cse                       34000       6880        234         96

        99       11234 A                  ABSC
cse                      366000       6880        234         95

        98       11672 B                  ABSC
it                        34000       6880        234         99

        98       11672 B                  ABSC
it                        37000       6880        234         98

        98       11672 B                  ABSC
it                        36000       6880       2366         97

        98       11672 B                  ABSC
it                       366000       6880        234         95

        98       11672 B                  ABSC
it                        34000       6880        234         99

        98       11672 B                  ABSC
it                        37000       6880        234         98

        98       11672 B                  ABSC
it                        36000       6880       2366         97

        98       11672 B                  ABSC
it                        34000       6880        234         96

        98       11672 B                  ABSC
it                       366000       6880        234         95
```

```
       97        1152 C                    ABSC
cse                      34000       6880        234          99

       97        1152 C                    ABSC
cse                      37000       6880        234          98

       97        1152 C                    ABSC
cse                      36000       6880       2366          97

       97        1152 C                    ABSC
cse                     366000       6880        234          95

       97        1152 C                    ABSC
cse                      34000       6880        234          99

       97        1152 C                    ABSC
cse                      37000       6880        234          98

       97        1152 C                    ABSC
cse                      36000       6880       2366          97

       97        1152 C                    ABSC
cse                      34000       6880        234          96

       97        1152 C                    ABSC
cse                     366000       6880        234          95

       96       11542 D                    ABSC
cse                      34000       6880        234          99

       96       11542 D                    ABSC
cse                      37000       6880        234          98

       96       11542 D                    ABSC
cse                      36000       6880       2366          97

       96       11542 D                    ABSC
cse                     366000       6880        234          95

       96       11542 D                    ABSC
cse                      34000       6880        234          99

       96       11542 D                    ABSC
cse                      37000       6880        234          98

       96       11542 D                    ABSC
cse                      36000       6880       2366          97

       96       11542 D                    ABSC
cse                      34000       6880        234          96

       96       11542 D                    ABSC
cse                     366000       6880        234          95

       95      115622 E                    ABSC
it                       34000       6880        234          99
```

```
        95      115622 E                    ABSC
it                          37000       6880         234          98

        95      115622 E                    ABSC
it                          36000       6880        2366          97

        95      115622 E                    ABSC
it                         366000       6880         234          95

        95      115622 E                    ABSC
it                          34000       6880         234          99

        95      115622 E                    ABSC
it                          37000       6880         234          98

        95      115622 E                    ABSC
it                          36000       6880        2366          97

        95      115622 E                    ABSC
it                          34000       6880         234          96

        95      115622 E                    ABSC
it                         366000       6880         234          95


45 rows selected.
```

Q5: Write a simple program and cursor program to demonstrate the use of PL-SQL program using the data from the above table. Write the PL-SQL program in the sql file named as Program_123.sql

```
PL/SQL procedure successfully completed.

SQL> set serveroutput on;
SQL> @C:\Users\KIIT\Desktop\DBMS_PROJECT\program_187.sql
 18  /
Customer-Id:102Customer-Name : B
Customer-Id:105Customer-Name : B
Customer-Id:106Customer-Name : B
Customer-Id:106Customer-Name : B

PL/SQL procedure successfully completed.

SQL>
```