

# **ONLINE SHOPPING DATABASE MANAGEMENT SYSTEM**

## **MINI PROJECT REPORT**

*Submitted by*

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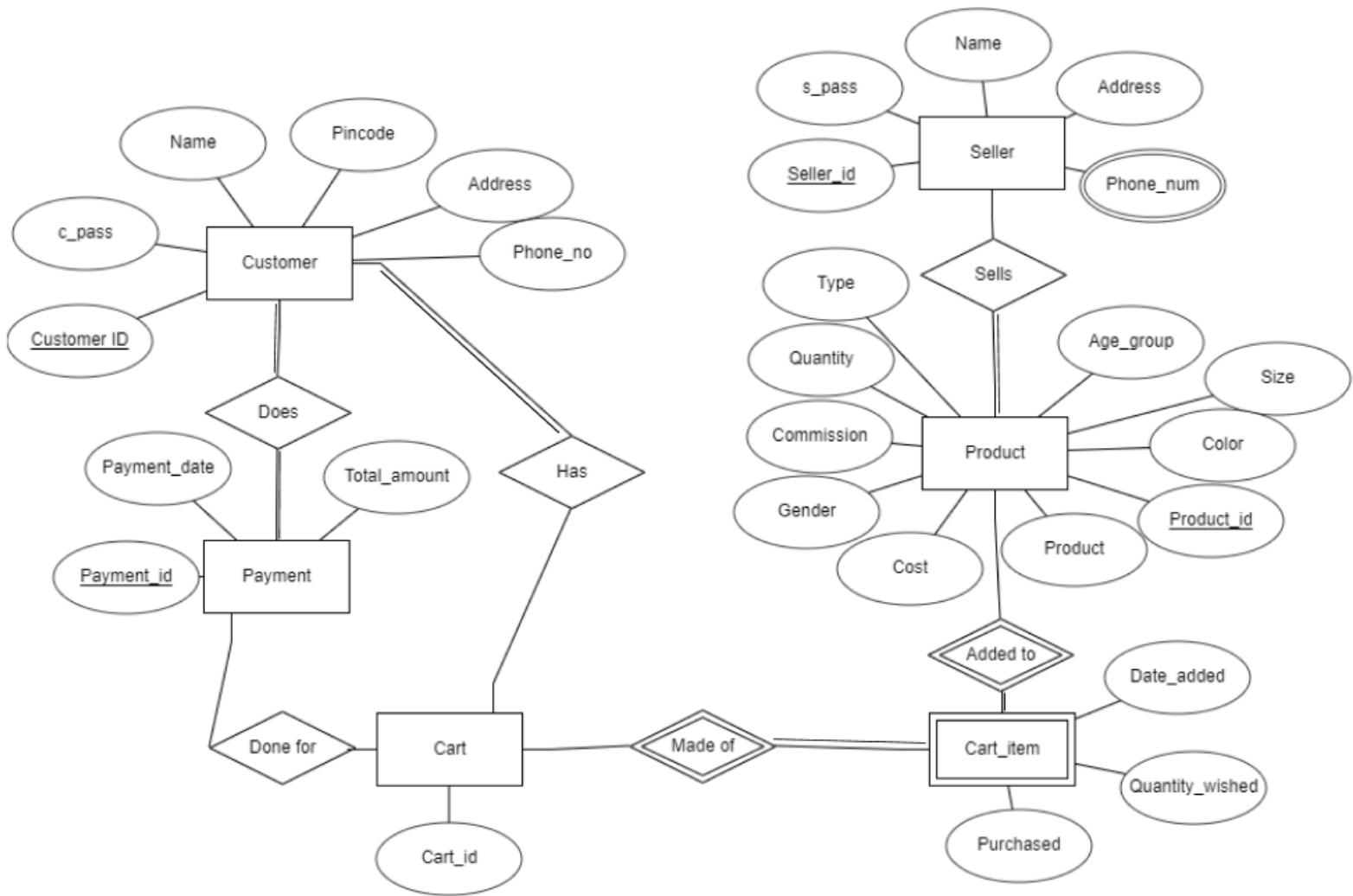
## **Abstract and project description**

In this modern age of online shopping, no seller wants to be left behind, and the transition from offline to online sales is growing fast due to its simplicity. So it's our job as engineers to facilitate that transition for the sell-side. Of the many things an online site needs, the most important is a database system. So in this project, we plan to design a database where small clothing retailers can sell their products online.

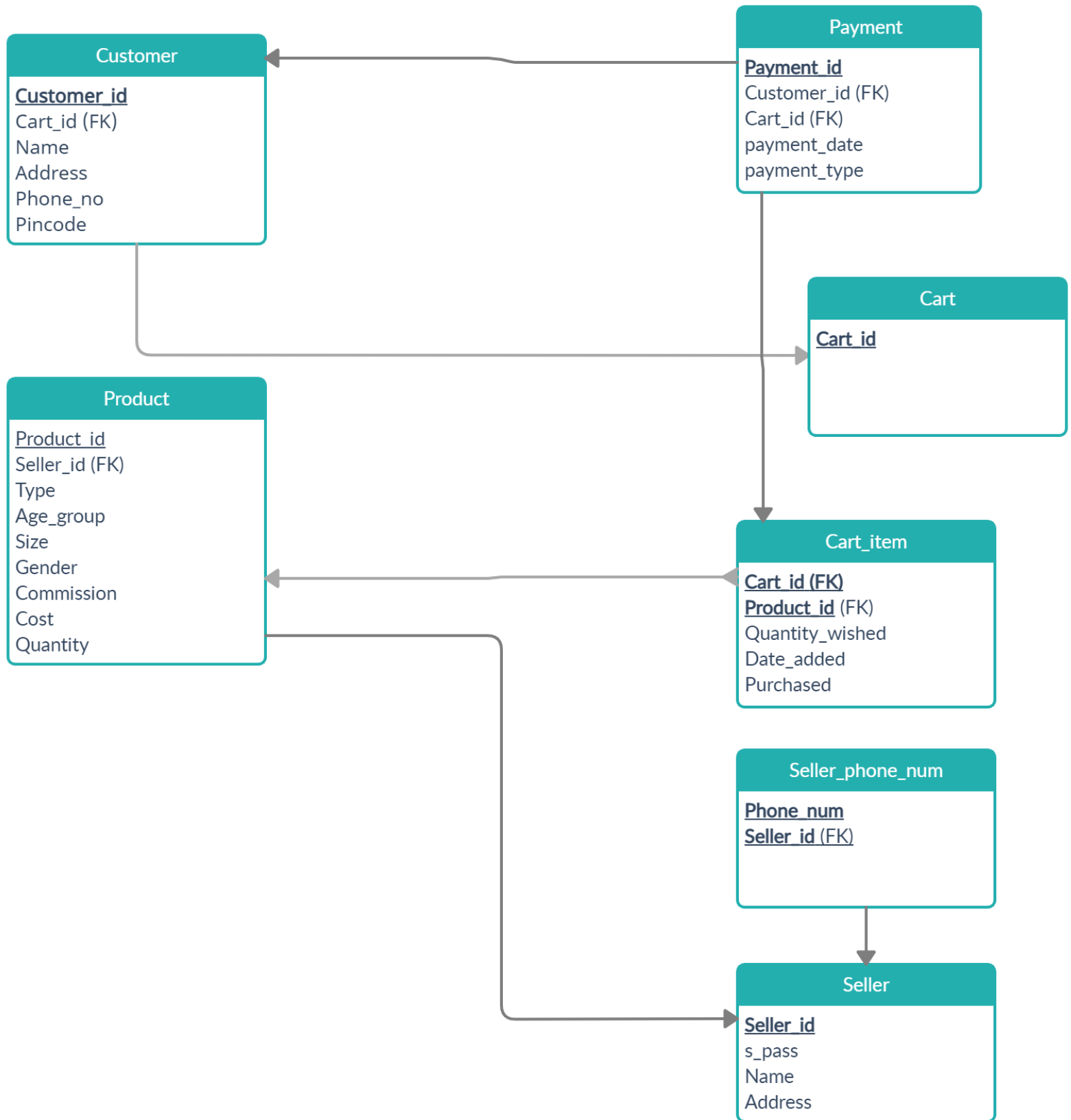
## **Functional requirements**

- New user registration on website
- See details of item in cary
- View order history.
- Admin can start a sale with specified discount.
- Customer can filter the products.
- Customer can add or delete product.
- A seller can unregister/ stop selling his product.
- A seller/ customer can update his details.
- Admin can view the products purchased on particular date.
- Admin can view number of products sold on a particular date.
- A customer can view the total price of product present in the cart unpurchased.
- Admin can view details of customer who have not purchased anything.
- Admin can view total profit earned from the website.

## Entity Relation Diagram



# Relational Database Schema



## Implementation

```
CREATE TABLE Cart
(
    Cart_id VARCHAR(7) NOT NULL,
    PRIMARY KEY (Cart_id)
);
```

```
CREATE TABLE Customer
(
    Customer_id VARCHAR(6) NOT NULL,
    c_pass VARCHAR(10) NOT NULL,
    Name VARCHAR(20) NOT NULL,
    Address VARCHAR(20) NOT NULL,
    Pincode NUMBER(6) NOT NULL,
    Phone_number_s number(10) NOT NULL,
    PRIMARY KEY (Customer_id),
    Cart_id VARCHAR(7) NOT NULL,
    FOREIGN KEY (Cart_id) REFERENCES cart (Cart_id)
);
```

```
CREATE TABLE Seller
(
    Seller_id VARCHAR(6) NOT NULL,
    s_pass VARCHAR(10) NOT NULL,
    Name VARCHAR(20) NOT NULL,
    Address VARCHAR(10) NOT NULL,
    PRIMARY KEY (Seller_id)
);
```

```
CREATE TABLE Seller_Phone_num
(
    Phone_num NUMBER(10) NOT NULL,
    Seller_id VARCHAR(6) NOT NULL,
    PRIMARY KEY (Phone_num, Seller_id),
    FOREIGN KEY (Seller_id) REFERENCES Seller (Seller_id)
    ON DELETE CASCADE
```

```
);
```

```
CREATE TABLE Payment
(
    payment_id VARCHAR(7) NOT NULL,
    payment_date DATE NOT NULL,
    Payment_type VARCHAR(10) NOT NULL,
    Customer_id VARCHAR(6) NOT NULL,
    Cart_id VARCHAR(7) NOT NULL,
    PRIMARY KEY (payment_id),
    FOREIGN KEY (Customer_id) REFERENCES
Customer(Customer_id),
    FOREIGN KEY (Cart_id) REFERENCES Cart(Cart_id),
    total_amount numeric(6)
);
```

```
CREATE TABLE Product
(
    Product_id VARCHAR(7) NOT NULL,
    Type VARCHAR(7) NOT NULL,
    Color VARCHAR(15) NOT NULL,
    P_Size VARCHAR(2) NOT NULL,
    Gender CHAR(1) NOT NULL,
    Commission NUMBER(2) NOT NULL,
    Cost NUMBER(5) NOT NULL,
    Quantity NUMBER(2) NOT NULL,
    Seller_id VARCHAR(6),
    PRIMARY KEY (Product_id),
    FOREIGN KEY (Seller_id) REFERENCES Seller(Seller_id)
    ON DELETE SET NULL
);
```

```
CREATE TABLE Cart_item
(
    Quantity_wished NUMBER(1) NOT NULL,
    Date_Added DATE NOT NULL,
    Cart_id VARCHAR(7) NOT NULL,
    Product_id VARCHAR(7) NOT NULL,
```

```

FOREIGN KEY (Cart_id) REFERENCES Cart(Cart_id),
FOREIGN KEY (Product_id) REFERENCES Product(Product_id),
Primary key(Cart_id,Product_id)
);

```

```

insert into Cart values('crt1011');
insert into Customer
values('cid100','ABCM1235','rajat','G-453','632014',9893135876,
'crt1011');
insert into Seller values('sid100','12345','aman','delhi
cmc');
insert into Product
values('pid1001','jeans','red','32','M',10,10005,20,'sid100');
insert into Seller_Phone_num values('9943336206','sid100');
insert into Cart_item
values(3,to_date('10-OCT-1999','dd-mon-yyyy'),'crt1011','pid1001',
'Y');
insert into Payment
values('pmt1001',to_date('10-OCT-1999','dd-mon-yyyy'),'online','cid100','crt1011',NULL);

```

```

-- If the customer wants to see details of product present in
the cart
select * from product where product_id in(
select product_id from Cart_item where (Cart_id in (
select Cart_id from Customer where
Customer_id='cid100'
))
and purchased='NO');
-- If a customer wants to see order history
select product_id,Quantity_wished from Cart_item where
(purchased='Y' and Cart_id in (select Cart_id from customer
where Customer_id='cid101'));
-- Customer wants to see filtered products on the basis of
size,gender,type
select product_id, color, cost, seller_id from product where
(type='jeans' and p_size='32' and gender='F' and quantity>0)
-- If customer wants to modify the cart

```



```

delete from cart_item where (product_id='pid1001' and
Cart_id in (select cart_id from Customer where
Customer_id='cid100'));
-- If a seller stops selling his product
delete from seller where seller_id = 'sid100';
update product set quantity = 00 where seller_id is NULL;
-- If admin want to see what are the product purchased on the
particular date
select product_id from cart_item where (purchased='Y' and
date_added='12-dec-2018');
-- How much product sold on the particular date
select count(product_id) count_pid,date_added from Cart_item
where purchased='Y' group by(date_added);
-- If a customer want to know the total price present in the
cart
select sum(quantity_wished * cost) total_payable from
product p join cart_item c on p.product_id=c.product_id where
c.product_id in (select product_id from cart_item where cart_id
in(select Cart_id from customer where customer_id='cid101') and
purchased='Y');
-- Show the details of the customer who has not purchased any
thing
Select * from customer where customer_id not in (select
customer_id from Payment);
-- Find total profit of the website from sales.
select sum(quantity_wished * cost * commission/100)
total_profit from product p join cart_item c on
p.product_id=c.product_id where purchased='Y';

```

```

-- Procedure which returns the type of product with the cost
less than the given cost
create or replace procedure cost_filter(c in number,t in
varchar)
is
cs product.cost%type;
ty product.type%type;

```

```

    id product.product_id%type;
    cursor cf is
        select product_id,cost,type from product where cost<c and
type=t;
    begin
        open cf;
        loop
            fetch cf into id,cs,ty;
            exit when cf%notfound;
            dbms_output.put_line('Product' || id || 'has cost ' || cs ||
' and the type is' || ty);
        end loop;
        close cf;
        exception
        when no_data_found then
            dbms_output.put_line('Sorry no such products exist');
        end;
-- Function which returns total number of products which a
particular seller sells
        create or replace function totalProducts(sId in varchar)
        return number
        is
            total number(2):=0;
        begin
            select count(*) into total
            from product
            where seller_id=sId;
            return total;
        end;
        /
-- Function execution:

        declare
            c number(2);
        begin
            c:=totalProducts('sid102');
            dbms_output.put_line('Total products is : ' || c);
        end;

```

```
-- Procedure which returns the total quantity of product with
the given ID
-- Procedure with exception handling

create or replace procedure prod_details(p_id in varchar)
is
    quan number(2);
begin
    select quantity into quan from product where
product_id=p_id;
    exception
    when no_data_found then
        dbms_output.put_line('Sorry no such product exist !!');
    end;
/
```

```
-- Function to count number of cart items

create or replace function numCartId(cd in varchar)
return number
is
    total number(2) :=0;
begin
    select count(*) into total
    from cart_item
    where cart_id=cd;
    return total;
end;

Trigger
Create or replace trigger before_customer
before insert
on
customer
for each row
declare
    c varchar(10);
    n number(2);
begin
```

```

c:= :new.cart_id;
n:=numCartId(c);
if n>0 then
dbms_output.put_line('Sorry');
end if;
insert into cart values(c);
end;

-- Trigger to update the total amount of user everytime he adds
something to payment table

create or replace function total_cost(cId in varchar)
return number
is
total number(2) :=0;
begin
select sum(cost) into total from product, cart_item where
product.product_id=cart_item.product_id and cart_id=cId;
return total;
end;

create or replace trigger before_pay_up
before insert
on
payment
for each row
declare
total number(3);
begin
total :=total_cost(:new.cart_id);
insert into payment
values(:new.payment_id,:new.payment_date,:new.payment_type,:new.
customer_id,:new.cart_id,total);
end;

```

## Screenshots

TABLE Cart

| Cart_id |
|---------|
| crt1011 |
| crt1012 |
| crt1013 |

TABLE Customer

| Customer_id | c_pass   | Name   | Address | Pincode | Phone_number_s | Cart_id |
|-------------|----------|--------|---------|---------|----------------|---------|
| cid100      | ABCM1235 | rajat  | G-453   | 632014  | 9893135876     | crt1011 |
| cid101      | ABCM1236 | rakesh | H-453   | 632014  | 5598662411     | crt1012 |
| cid102      | ABCM1237 | rajesh | A-453   | 632014  | 9985632214     | crt1013 |

TABLE Seller

| Seller_id | s_pass | Name  | Address   |
|-----------|--------|-------|-----------|
| sid100    | 12345  | aman  | delhi cmc |
| sid101    | 56324  | ajay  | Agra cmc  |
| sid102    | 78965  | soman | Lko cmc   |

TABLE Seller\_Phone\_num

| Phone_num  | Seller_id |
|------------|-----------|
| 9943336206 | sid100    |
| 9956223415 | sid101    |

|            |        |
|------------|--------|
| 5569856321 | sid102 |
|------------|--------|

TABLE Payment

| payment_id | payment_date | Payment_type | Customer_id | Cart_id | total_amount |
|------------|--------------|--------------|-------------|---------|--------------|
| pmt1001    | 09-04-2022   | online       | cid100      | crt1011 | 100          |
| pmt1002    | 08-04-2022   | online       | cid101      | crt1012 | 200          |
| pmt1003    | 07-04-2022   | online       | cid102      | crt1013 | 850          |

TABLE Product

| Product_id | Type  | Color | P_Size | Gender | Commission | Cost  | Quantity | Seller_id |
|------------|-------|-------|--------|--------|------------|-------|----------|-----------|
| pid1001    | jeans | red   | 32     | M      | 10         | 10005 | 20       | sid100    |
| pid1002    | shirt | white | 42     | M      | 20         | 2005  | 40       | sid101    |
| pid1003    | skirt | pink  | 30     | F      | 30         | 1000  | 60       | sid102    |

TABLE Cart\_item

| Quantity_wished | Date_Added | Cart_id | Product_id |
|-----------------|------------|---------|------------|
| 3               | 09-04-2022 | crt1011 | pid1001    |
| 10              | 08-04-2022 | crt1012 | pid1002    |
| 2               | 07-04-2022 | crt1013 | pid1003    |



## create\_cart



### Query

### Settings

```
CREATE TABLE Cart
(
    Cart_id VARCHAR(7) NOT NULL,
    PRIMARY KEY(Cart_id)
);
```



## create\_cart\_item



### Query

### Settings

```
CREATE TABLE Cart_item
(
    Quantity_wished TEXT NOT NULL,
    Date_Added DATE NOT NULL,
    Cart_id VARCHAR(7) NOT NULL,
    Product_id VARCHAR(7) NOT NULL,
    FOREIGN KEY (Cart_id) REFERENCES Cart(Cart_id),
    FOREIGN KEY (Product_id) REFERENCES Product(Product_id),
    Primary key(Cart_id,Product_id)
);
```



## create\_customer



### Query

### Settings

```
CREATE TABLE Customer
(
    Customer_id VARCHAR(6) NOT NULL,
    c_pass VARCHAR(10) NOT NULL,
    Name VARCHAR(20) NOT NULL,
    Address VARCHAR(20) NOT NULL,
    Pincode NUMBER(6) NOT NULL,
    Phone_number_s number(10) NOT NULL,
    PRIMARY KEY (Customer_id),
    Cart_id VARCHAR(7) NOT NULL,
    FOREIGN KEY(Cart_id) REFERENCES cart(Cart_id)
);
```

## create\_payment

Query

Settings

```
CREATE TABLE Payment
(
    payment_id VARCHAR(7) NOT NULL,
    payment_date DATE NOT NULL,
    Payment_type VARCHAR(10) NOT NULL,
    Customer_id VARCHAR(6) NOT NULL,
    Cart_id VARCHAR(7) NOT NULL,
    PRIMARY KEY (payment_id),

    FOREIGN KEY (Cart_id) REFERENCES Cart(Cart_id),
    total_amount numeric(6)
);
```



## create\_product

Query

Settings



```
CREATE TABLE Product
(
    Product_id VARCHAR(7) NOT NULL,
    Type VARCHAR(7) NOT NULL,
    Color VARCHAR(15) NOT NULL,
    P_Size VARCHAR(2) NOT NULL,
    Gender CHAR(1) NOT NULL,
    Commission TEXT NOT NULL,
    Cost TEXT NOT NULL,
    Quantity TEXT NOT NULL,
    Seller_id VARCHAR(6),
    PRIMARY KEY (Product_id),
    FOREIGN KEY (Seller id) REFERENCES Seller(Seller id)
```



 create\_seller 

Query Settings

```
CREATE TABLE Seller
(
    Seller_id VARCHAR(6) NOT NULL,
    s_pass VARCHAR(10) NOT NULL,
    Name VARCHAR(20) NOT NULL,
    Address VARCHAR(10) NOT NULL,
    PRIMARY KEY (Seller_id)
);
```

 create\_seller\_contact 

Query Settings

```
CREATE TABLE Seller_Phone_num
(
    Phone_num TEXT NOT NULL,
    Seller_id VARCHAR(6) NOT NULL,
    PRIMARY KEY (Phone_num, Seller_id),
    FOREIGN KEY (Seller_id) REFERENCES Seller(Seller_id)
    ON DELETE CASCADE
);
```

 insert\_in\_tables  dbms\_ecor

Query Settings

```
insert into Cart values('crt1011');

insert into Customer values('cid100','ABCM1235','rajat','G-453','632014',9893135876, 'crt1011');

insert into Seller values('sid100','12345','aman','delhi cmc');

insert into Product values('pid1001','jeans','red','32','M',10,10005,20,'sid100');

insert into Seller_Phone_num values('9943336206','sid100');

insert into Cart_item values(3,to_date('10-OCT-1999','dd-mon-yyyy'),'crt1011','pid1001','Y');

insert into Payment values('pmt1001',to_date('10-OCT-1999','dd-mon-yyyy'),'online','cid100','crt1011',NULL);
```