

Ex: 12.

Date: 23/10/25

## Task 12: Micro projects:

Aim:

- To do a micro project on online shopping cart managing.
- To design & Implement a relational db for online shopping platform.
- To maintain records for users, products, orders, & payments efficiently.
- To ensure data consistency & integrity through normalization.
- To demonstrate CRUD operations using SQL.
- To generate useful reports like sales & inventory summaries & diagram (model).

Entities :      Relationship

Customer      \* 1 customer can have many orders.

Product      \* 1 order can have many products.

Cart      \* 1 order gives 1 payment record

Order      \* 1 order gives 1 payment record

Payment      \* 1 customer can have many products

## Database design

### Customer table:

```
CREATE TABLE Customer (cu_id int primary key,  
cname varchar(20), email varchar(20) unique,  
phone varchar(10));
```

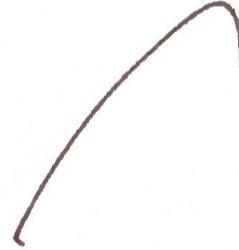
### Product table:

```
CREATE TABLE Product (pr_id int primary key,  
pname varchar(10), price int, stock int);
```

Pr.-SD	Pr-name	Price	Stock
221	Watch	250	115
102	Shoes	500	150
201	Laptop	25000	80

Revenues

59000.00



Cart table:

Create table cart (c\_id int PRIMARY KEY, cu\_id int, FOREIGN KEY (cu\_id) REFERENCES customer (cu\_id), item varchar (15)) MR-3D,  
FOREIGN KEY (pr\_id) REFERENCES product (pt\_id);  
order;

CREATE TABLE orders (o\_id int PRIMARY KEY, cu\_id int, amount int, Amount int, FOREIGN KEY (cu\_id) REFERENCES customer (cu\_id));

Payment table:

Create table payment (pn\_id int PRIMARY KEY, o\_id int, amount int, p\_date date, FOREIGN KEY (o\_id) REFERENCES orders (o\_id));

Insertion:

SQ1: insert into customer values ('1', 'arya', 'arya@gmail.com')  
9876543210

SQ2: insert into product values (211, 'watch', 250, 115);

SQ3: Insert into product values (101, 'shoe', 500, 150);

SQ4: Insert into product values (201, 'Laptop', 25000, 50);

SQ5: Deletion:

SQ6: Select \* from product;

SQ7: Select sum(amount) AS Revenue From orders;

SQ8: select Product\_name, stock from product  
where stock <;

VEL TECH	
EX NO	
PERFORMANCE (5)	✓
RESULT AND ANALYSIS (5)	✗
VIVA VOCE (5)	✓
RECORD (5)	✓
TOTAL (20)	9
SIGN WITH DATE	

Result:

It ensures efficient data storage, retrieval & integrity using relation design and SQL queries.

Thus, the managing of online shopping cart

Micro project is done and verified successfully.