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 d/b 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 E.R 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 produc

Database design

Customer table:

```
CREATE TABLE Customer (CO-ID int primary key,
cname varchar (20), email varchar (20) unique,
Phone varchar (10));
```

Product table:

```
CREATE TABLE Product (PT-id int primary key,
P_name varchar(10), price int, stock int);
```

Pr-ID	Pr-name	Price	Stock
221	watch	250	115
102	shoes	500	150
201	laptop	45008	80

Revenue:

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)) PR-ID, 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 (P2D int PRIMARY KEY, O-ID int, amount int, @-date date, FOREIGN KEY (O-ID) REFERENCES orders (O-ID);

Insertion:

SQL> INSERT INTO customer values ('1', 'Riya', 'riya@gm.com) 9876543210);

SQL> INSERT into product values (111, 'watch', 200, 115);

SQL >> Insert into product values (101 'shoes', 500, 100);

SQL >> Insert into product values (201, 'Laptop', 45000, 50);

SQL Queries:

SQL >> Select * From product;

SQL>> Select sum (amount) As Revenue From orders;

SQL>> Select product_name, stock from product where stock <5;

VEL TECH

EX NO	
PERFORMANCE (5)	12
RESULT AND ANALYSIS (5)	4
VIVA VOCE (5)	5
RECORD (5)	4
TOTAL (20)	3
SIGN WITH DATE	17

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.