E-Com Application (Coding Challenge)

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create database assignment;

use assignment;

//customers table

create table customers

(

customer_id int primary key,

firstname varchar(40),

lastname varchar(40),

email varchar(40),

password varchar(40)

);

insert into customers (customer_id, firstname, lastname, email, password) values

(1, 'John', 'Doe', 'johndoe@example.com', '123 Main St, City'),

(2, 'Jane' ,'Smith', 'janesmith@example.com', '456 Elm St, Town'),

(3, 'Robert', 'Johnson', 'robert@example.com', '789 Oak St, Village'),

(4, 'Sarah', 'Brown', 'sarah@example.com', '101 Pine St, Suburb'),

(5, 'David', 'Lee', 'david@example.com', '234 Cedar St, District'),

(6, 'Laura', 'Hall', 'laura@example.com', '567 Birch St, County'),

(7, 'Michael', 'Davis', 'michael@example.com', '890 Maple St, State'),

(8, 'Emma', 'Wilson', 'emma@example.com', '321 Redwood St, Country'),

(9, 'William', 'Taylor', 'william@example.com', '432 Spruce St, Province'),

(10, 'Olivia', 'Adams', 'olivia@example.com', '765 Fir St, Territory');

```sql
//products table

create table products
(
product_id int primary key,
name varchar(40),
description varchar(50),
price float,
stockQuantity int
);
insert into products (product_id, name, description, price, stockQuantity) VALUES
(1, 'Laptop', 'High-performance laptop', 800.00, 10),
(2, 'Smartphone', 'Latest smartphone', 600.00, 15),
(3, 'Tablet', 'Portable tablet', 300.00, 20),
(4, 'Headphones', 'Noise-canceling', 150.00, 30),
(5, 'TV', '4K Smart TV', 900.00, 5),
(6, 'Coffee Maker', 'Automatic coffee maker', 50.00, 25),
(7, 'Refrigerator', 'Energy-efficient', 700.00, 10),
(8, 'Microwave Oven', 'Countertop microwave', 80.00, 15),
(9, 'Blender', 'High-speed blender', 70.00, 20),
(10, 'Vacuum Cleaner', 'Bagless vacuum cleaner', 120.00, 10);

//cart table
create table cart
(
cart_id int primary key,
customer_id int,
product_id int,
quantity int,
foreign key (customer_id) references customers(customer_id),
```

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foreign key (product_id) references products(product_id)
);
insert into cart (cart_id, customer_id, product_id, quantity) values
(1, 1, 1, 2),
(2, 1, 3, 1),
(3, 2, 2, 3),
(4, 3, 4, 4),
(5, 3, 5, 2),
(6, 4, 6, 1),
(7, 5, 1, 1),
(8, 6, 10, 2),
(9, 6, 9, 3),
(10, 7, 7, 2);


//order table
create table orders
(
order_id int primary key,
customer_id int,
order_date date,
total_price float,
foreign key (customer_id) references customers(customer_id)
);
insert into orders (order_id, customer_id, order_date, total_price) values
(1, 1, '2023-01-05', 1200.00),
(2, 2, '2023-02-10', 900.00),
(3, 3, '2023-03-15', 300.00),
(4, 4, '2023-04-20', 150.00),
(5, 5, '2023-05-25', 1800.00),
(6, 6, '2023-06-30', 400.00),
(7, 7, '2023-07-05', 700.00),
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(8, 8, '2023-08-10', 160.00),

(9, 9, '2023-09-15', 140.00),

(10, 10, '2023-10-20', 1400.00);


//order_items table

create table order_items

(

order_item_id int primary key,

order_id int,

product_id int,

quantity int,

itemAmount float,

foreign key (order_id) references orders(order_id),

foreign key (product_id) references products(product_id)

);

insert into order_items (order_item_id, order_id, product_id, quantity, itemAmount) values

(1, 1, 1, 2, 1600.00),

(2, 1, 3, 1, 300.00),

(3, 2, 2, 3, 1800.00),

(4, 3, 5, 2, 1800.00),

(5, 4, 4, 4, 600.00),

(6, 4, 6, 1, 50.00),

(7, 5, 1, 1, 800.00),

(8, 5, 2, 2, 1200.00),

(9, 6, 10, 2, 240.00),

(10, 6, 9, 3, 210.00);


drop table customers;

drop table products;

drop table cart;

drop table orders;
```

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drop table order_items;


select * from customers;

select * from products;

select * from cart;

select * from orders;

select * from order_items;


-- Query1

update products

set price=800.00

where product_id=7 and name='Refrigerator';


-- Query2

delete from cart

where customer_id=6;


-- Query3

select name from products

where price<100;


-- Query4

select name from products

where stockQuantity>5;


-- Query5

select * from orders

where total_price between 500 and 1000;


-- Query6

select name from products
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where name like '%r';


-- Query7
select p.name from cart c
inner join products p
on c.product_id=p.product_id
where c.customer_id=5;


-- Query8
select c.firstname,c.lastname from customers c
inner join orders o
on c.customer_id=o.customer_id
where o.order_date between '2023-01-01' and '2023-12-31';


-- Query9
select min(stockQuantity) from products;


-- Query10
select o.customer_id,sum(oi.itemAmount) from orders o
inner join order_items oi
on o.order_id=oi.order_id
group by o.customer_id;


-- Query11
select customer_id,avg(total_price) as Average_amount from orders
group by customer_id;


-- Query12
select o.customer_id, count(*) as number_of_orders from orders o
inner join order_items oi
on o.order_id=oi.order_id
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    group by oi.order_id;


-- Query13
select o.customer_id, max(itemAmount) as maximum_amount from orders o
inner join order_items oi
on o.order_id=oi.order_id
group by oi.order_id;


-- Query14
select o.customer_id, sum(itemAmount) as sum_amount from orders o
inner join order_items oi
on o.order_id=oi.order_id
group by oi.order_id
having sum(itemAmount)>=1000;


-- Query15
insert into cart (cart_id, customer_id, product_id, quantity) values
(8, 6, 10, 2),
(9, 6, 9, 3);


select name from products
where product_id not in (select product_id from cart);


-- Query16
select customer_id from orders
where order_id not in (select order_id from order_items);


-- Query17
select product_id,(sum(itemAmount)/(select sum(itemAmount) from order_items)) * 100 as
revenue_percentage
from order_items
```

```sql
    group by product_id;


-- Query18

select name from products

where stockQuantity = (select min(stockQuantity) from products);


-- Query19

select customer_id from orders

where order_id = (select order_id from order_items group by order_id order by sum(itemAmount)
desc limit 1);
```