

ASSIGNMENT 1

TASK 1

1. create database TechShop;
use TechShop;
2. create table Customers(CustomerID int PRIMARY KEY, FirstName varchar(20), LastName varchar(20), Email varchar(40), Phone varchar(20), Address varchar(20));

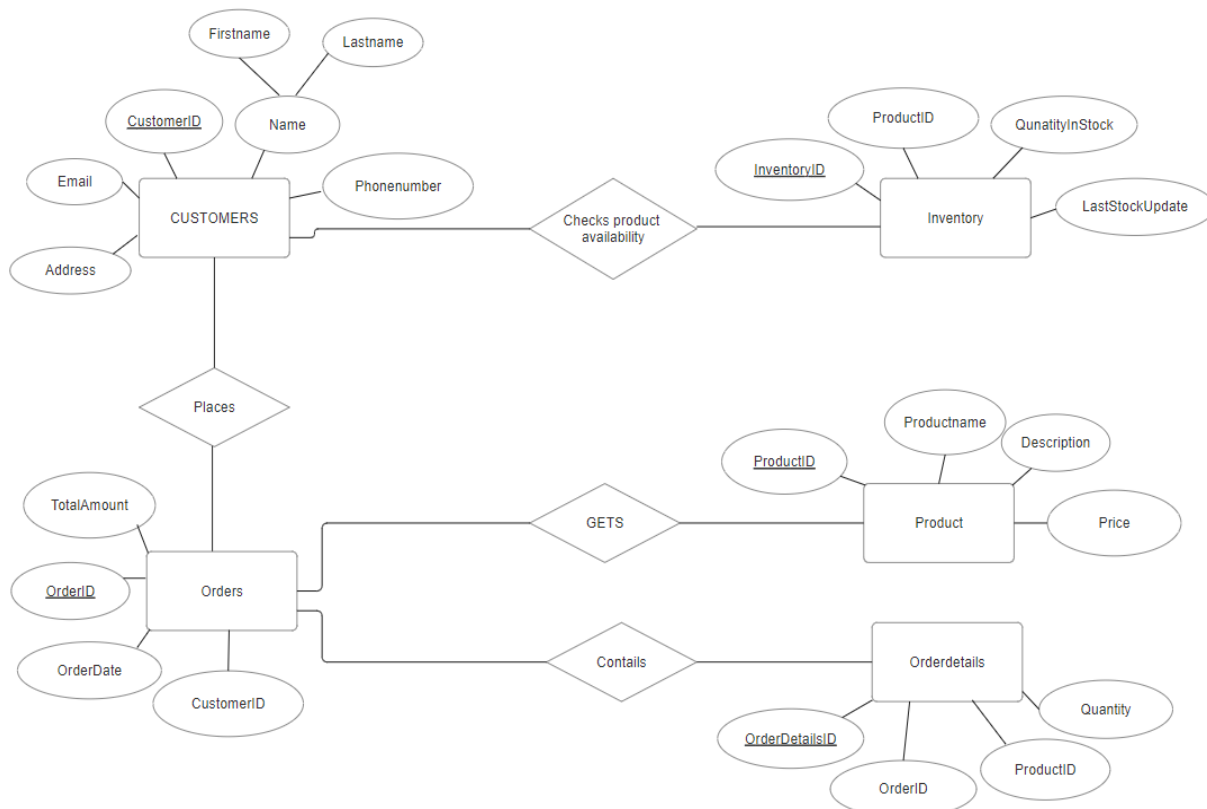
create table Products(ProductID int PRIMARY KEY, ProductName varchar(20), Description varchar(100), Price int);

create table Orders(OrderID int PRIMARY KEY, CustomerID int, OrderDate date, TotalAmount int, FOREIGN KEY(OrderID) references Customers(CustomerID));

create table OrderDetails(OrderDetailID int PRIMARY KEY, OrderID int, ProductID int, Quantity int, FOREIGN KEY(OrderID) references Orders(OrderID), FOREIGN KEY(ProductID) references Products(ProductID));

create table Inventory(InventoryID int PRIMARY KEY, ProductID int, QuantityInStock int, LastStockUpdate date, FOREIGN KEY(ProductID) references Products(ProductID));

3.



4. insert into Customers values

(1, 'Alice', 'Johnson', 'alice@example.com', '123-456-7890', '123 Oak Street'),
(2, 'Bob', 'Smith', 'bob@example.com', '987-654-3210', '456 Maple Avenue'),
(3, 'Eva', 'Brown', 'eva@example.com', '555-123-4567', '789 Pine Road'),
(4, 'David', 'Lee', 'david@example.com', '333-888-9999', '1010 Cedar Lane'),
(5, 'Sophia', 'Garcia', 'sophia@example.com', '222-777-4444', '1313 Elm Street'),
(6, 'Liam', 'Martinez', 'liam@example.com', '111-999-8888', '1616 Walnut Avenue'),
(7, 'Olivia', 'Rodriguez', 'olivia@example.com', '444-555-6666', '1818 Pine Street'),
(8, 'William', 'Lopez', 'william@example.com', '777-222-3333', '2121 Cedar Avenue'),
(9, 'Emma', 'Perez', 'emma@example.com', '999-111-2222', '2323 Oak Lane'),
(10, 'Alexander', 'Gonzalez', 'alexander@example.com', '666-444-8888', '2626 Maple Road');

insert into Products values

(1, 'Laptop', 'High-performance laptop with SSD storage.', 999.99),
(2, 'Smartphone', 'Latest model smartphone with advanced camera features.', 799.99),
(3, 'Headphones', 'Noise-canceling headphones for immersive audio experience.', 149.99),
(4, 'Backpack', 'Durable and spacious backpack for everyday use.', 49.99),
(5, 'Tablet', 'Portable tablet with long battery life.', 399.99),
(6, 'Smartwatch', 'Stylish smartwatch with fitness tracking capabilities.', 199.99),
(7, 'Camera', 'Professional camera with interchangeable lenses.', 799.99),
(8, 'Speaker', 'Wireless speaker with rich sound quality.', 129.99),
(9, 'Printer', 'All-in-one printer for home or office use.', 299.99),
(10, 'Gaming Console', 'Next-gen gaming console for immersive gameplay.', 499.99);

insert into Orders values

(1, 1, '2024-04-27', 999.99),
(2, 2, '2024-04-28', 799.99),
(3, 3, '2024-04-29', 149.99),
(4, 4, '2024-04-30', 49.99),

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(5, 5, '2024-05-01', 399.99),  
(6, 6, '2024-05-02', 199.99),  
(7, 7, '2024-05-03', 799.99),  
(8, 8, '2024-05-04', 129.99),  
(9, 9, '2024-05-05', 299.99),  
(10, 10, '2024-05-06', 499.99);
```

insert into OrderDetails values

```
(1, 1, 1, 1),  
(2, 2, 2, 1),  
(3, 3, 3, 2),  
(4, 4, 4, 1),  
(5, 5, 5, 1),  
(6, 6, 6, 1),  
(7, 7, 7, 1),  
(8, 8, 8, 2),  
(9, 9, 9, 1),  
(10, 10, 10, 1);
```

insert into Inventory values

```
(1, 1, 50, '2024-04-27'),  
(2, 2, 100, '2024-04-28'),  
(3, 3, 200, '2024-04-29'),  
(4, 4, 150, '2024-04-30'),  
(5, 5, 75, '2024-05-01'),  
(6, 6, 80, '2024-05-02'),  
(7, 7, 90, '2024-05-03'),  
(8, 8, 120, '2024-05-04'),  
(9, 9, 60, '2024-05-05'),  
(10, 10, 30, '2024-05-06');
```

TASK 2

1. select FirstName,Lastname,email from Customers;
2. select o.orderdate,c.firstname,c.lastname from orders o,customers c where
o.customerID=c.customerID;
3. insert into Customers(customerID,firstname,lastname,email,address) values
(11,"Anil","Patel","anil@gmail.com","India");
4. update Products set price=price+(0.1*price);
5. delete from orderDetails where orderID=3;

delete from orders where orderID=3;
6. insert into orders(orderID,customerID,orderdate,totalamount) values (11,5,'2024-04-
27',10000);
7. update customers set email="abc@gmail.com" ,address="India" where customerID=2;
8. select concat(firstname,lastname) as name,count(o.customerid) from orders o join
customers c on o.customerid=c.customerid group by c.customerid order by
count(o.customerid) desc limit 1;
- 9.delete from orderdetails where orderID=(select orderID from orders where orderID=4);

delete from orders where orderID=4;
10. insert into products(productID,productname,description,price) values (11,"Electric
Fan","Bluetooth connectivity",2500);
11. alter table orders add status varchar(10);

update orders set status="pending";

update orders set status="Shipped" where status="pending";
12. select od.* from OrderDetails od join Orders o on od.OrderID = o.OrderID order by
o.OrderDate;

TASK 3

1. select orders.*,customers.firstname,customers.lastname as name from orders,customers where orders.customerID=customers.customerID;
2. select productname,sum(price*quantity) from orderdetails join products on products.productid=orderdetails.productid;
3. select * from customers join orders on customers.customerid=orders.customerid group by customers.customerid;
4. select productname,sum(quantity) from products join orderdetails on products.productID=orderdetails.productID group by products.productID order by sum(quantity) desc limit 1;
5. select productname,description from products where description="Electronic gadgets";
6. select concat(firstname,lastname) as name,avg(totalamount) from orders join customers on customers.customerID=orders.customerID group by orders.customerID;
7. select orderID,concat(firstname,lastname),phone,email,sum(totalamount) from orders join customers on orders.customerid=customers.customerid group by customers.customerid;
8. select productname,count(*) from products p join orderdetails o on p.productid=o.productid group by p.productID;
9. select * from customers c join orders o on c.customerid=o.customerid join orderdetails od on o.orderid=od.orderid join products p on p.productid=od.productid where p.productname="laptop";
10. select orderid,sum(totalamount) from orders where orderdate>'2024-04-28';

TASK 4

1. `SELECT concat(firstname,lastname) as name from customers where customerid not in(select customerid from orders);`
2. `select count(*) from products;`
3. `select sum(totalamount) from orders;`
4. `select productname,avg(quantity) from products join orderdetails on products.productid=orderdetails.productid where products.description="Electronic gadgets";`
5. `select concat(firstname,lastname) as name, sum(totalamount) from customers join orders where orders.customerid=5;`
6. `select concat(firstname,lastname) as name,count(o.customerid) from orders o join customers c on o.customerid=c.customerid group by c.customerid order by count(o.customerid) desc limit 1;`
7. `select productname,sum(totalamount) from products p join orderdetails od on p.productid=od.productid join orders o on o.orderid=od.orderid order by o.totalamount desc limit 1;`
8. `select c.firstname,c.lastname,o.totalamount from customers c, orders o where o.totalamount=(select max(total amount) from orders);`
9. `select avg(totalamount) from orders;`
10. `select firstname,lastname,count(orderid) from customers c join orders o on c.customerid=o.customerid group by o.customerid;`