WORKSHEET-3 SQL

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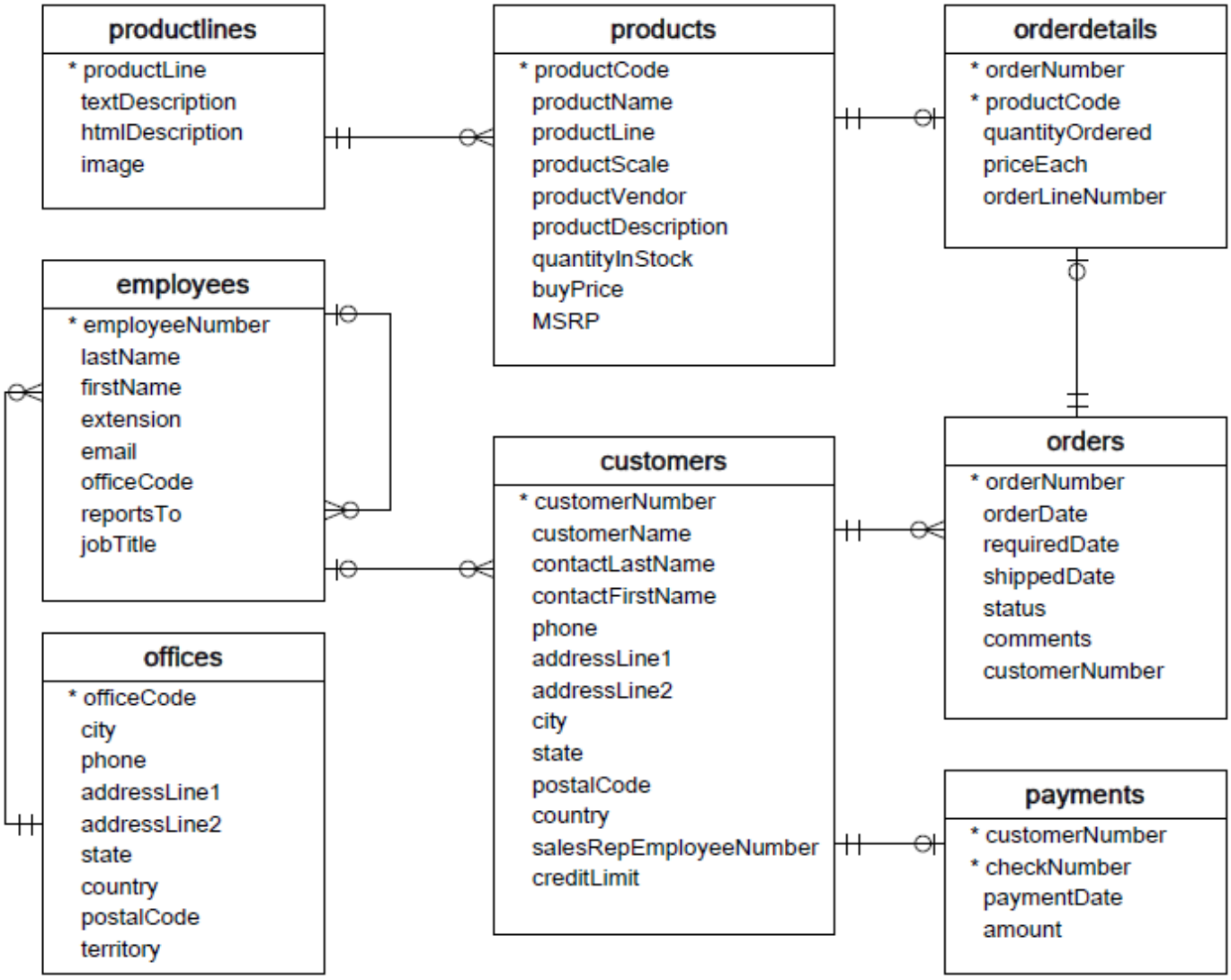
(FlipRobo Internship 26)

Refer the following ERD and answer all the questions in this worksheet. You have to write the queries using mysql for the required Operation.



- **Customers**: stores customer's data.
- **Products**: stores a list of scale model cars.
- **ProductLines**: stores a list of product line categories.
- **Orders**: stores sales orders placed by customers.
- **OrderDetails**: stores sales order line items for each sales order.
- **Payments**: stores payments made by customers based on their accounts.
- **Employees**: stores all employee information as well as the organization structure such as who reports to whom.
- **Offices**: stores sales office data.

1. Write SQL query to create table Customers.

```
create table Customers (        customerNumber int not null,
                                customerName varchar(50)  not null,
                                contactLastName varchar(50)  not null,
                                contactFirstName varchar(50)  not null,
                                phone int(11) not null,
                                addressline1 varchar(100),
                                addressline2 varchar(100),
                                city varchar(50),
                                state varchar(50),
                                postalcode int not null,
                                country varchar(100),
                                saleRepEmployeeNumber int not null,
                                creditLimit int not null,
                                primary key(customerNumber));
```

```
mysql> desc customers;
+-----------------------+--------------+------+-----+---------+-------+
| Field                 | Type         | Null | Key | Default | Extra |
+-----------------------+--------------+------+-----+---------+-------+
| customerNumber        | int          | NO   | PRI | NULL    |       |
| customerName          | varchar(50)  | NO   |     | NULL    |       |
| contactLastName       | varchar(50)  | NO   |     | NULL    |       |
| contactFirstName      | varchar(50)  | NO   |     | NULL    |       |
| phone                 | int          | NO   |     | NULL    |       |
| addressline1          | varchar(100) | YES  |     | NULL    |       |
| addressline2          | varchar(100) | YES  |     | NULL    |       |
| city                  | varchar(50)  | YES  |     | NULL    |       |
| state                 | varchar(50)  | YES  |     | NULL    |       |
| postalcode            | int          | NO   |     | NULL    |       |
| country               | varchar(100) | YES  |     | NULL    |       |
| saleRepEmployeeNumber | int          | NO   |     | NULL    |       |
| creditLimit           | int          | NO   |     | NULL    |       |
+-----------------------+--------------+------+-----+---------+-------+
13 rows in set (0.01 sec)
```

2. Write SQL query to create table Orders.

```
create table Orders (       orderNumber int not null,
                            orderDate date not null,
                            requiredDate date not null,
                            shippedDate date not null,
                            status varchar(25)  not null,
                            commments varchar(250),
                            customerNumber int not null,
                            primary key(ordernumber),
                            foreign key(customernumber) references customers(customernumber));
```

```
mysql> desc orders;
+----------------+-------------+------+-----+---------+-------+
| Field          | Type        | Null | Key | Default | Extra |
+----------------+-------------+------+-----+---------+-------+
| orderNumber    | int         | NO   | PRI | NULL    |       |
| orderDate      | date        | NO   |     | NULL    |       |
| requiredDate   | date        | NO   |     | NULL    |       |
| shippedDate    | date        | NO   |     | NULL    |       |
| status         | varchar(25) | NO   |     | NULL    |       |
| commments      | varchar(250)| YES  |     | NULL    |       |
| customerNumber | int         | NO   | MUL | NULL    |       |
+----------------+-------------+------+-----+---------+-------+
```

3. Write SQL query to show all the columns data from the Orders Table.

select * from Orders;

4. Write SQL query to show all the comments from the Orders Table.

select comments from Orders;

5. Write a SQL query to show orderDate and Total number of orders placed on that date, from Orders table

select orderDate, count(orderNumber) from Orders groupby orderDate ;

6. Write a SQL query to show employeNumber, lastName, firstName of all the employees from employees table.

select employeNumber, lastName, firstName from employees;

7. Write a SQL query to show all orderNumber, customerName of the person who placed the respective order.

select orderNumber, customerName from Orders inner join customers on orders.customerNumber= customers.customerNumber;

8. Write a SQL query to show name of all the customers in one column and salerepemployee name in another column.

select customerName, concat (firstName, " ", lastName) as EmployeeName from employees inner join customers on employees.employeeNumber = customers.salesRepEmployeeNumber;

9. Write a SQL query to show Date in one column and total payment amount of the payments made on that date from the payments table.

select paymentDate, sum(amount) from payments groupby paymentDate ;

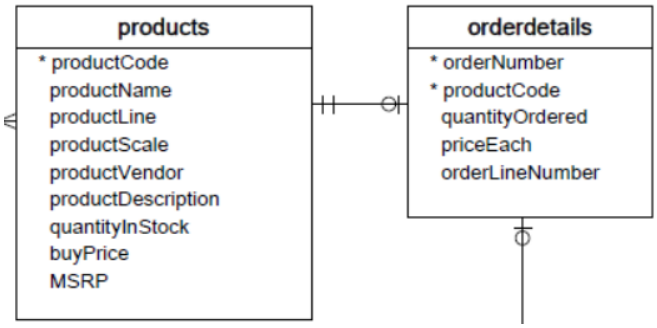
10. Write a SQL query to show all the products productName, MSRP, productDescription from the products table.

select productName, MSRP, productDescription from products;

11. Write a SQL query to print the productName, productDescription of the most ordered product.

select productName, productDescription from Products inner join Orderdetails on Products.productCode = Orderdetails.productCode group by Products.productCode order by sum(quantityOrdered) desc limit 1;

Explanation:



- After taking the inner join and selecting required columns, I've grouped by Product Code.
- Next sum of QuantityOrder was needed to find out the ordered quantities.
- Then sorted it in descending order and extracted the top most product to find required result.

12. Write a SQL query to print the city name where maximum number of orders were placed.

select city from orders inner join customers on orders.customerNumber = customers.customerNumber group by city order by count(orderNumber) desc limit 1;

13. Write a SQL query to get the name of the state having maximum number of customers.

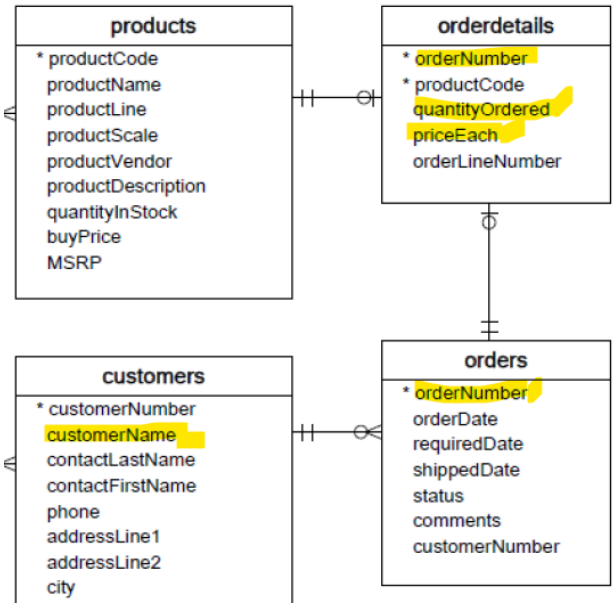
select state, count(customerNumber) from customers order by count(customerNumber) group by state;

14. Write a SQL query to print the employee number in one column and Full name of the employee in the second column for all the employees.

select employeeNumber as EmpNumber, concat(firstName, lastName) as EmpName from employees ;

15. Write a SQL query to print the orderNumber, customer Name and total amount paid by the customer for that order (quantityOrdered × priceEach).

select orderNumber, customerName, quantityOrdered * priceEach as TotalAmount from OrderDetails inner join orders on OrderDetails.orderNumber = orders.orderNumber inner join Customers on orders.customerNumber = Customers.customerNumber;



Explanation: Used the three tables, OrderDetails, orders, Customers; as shown in the above screenshot.