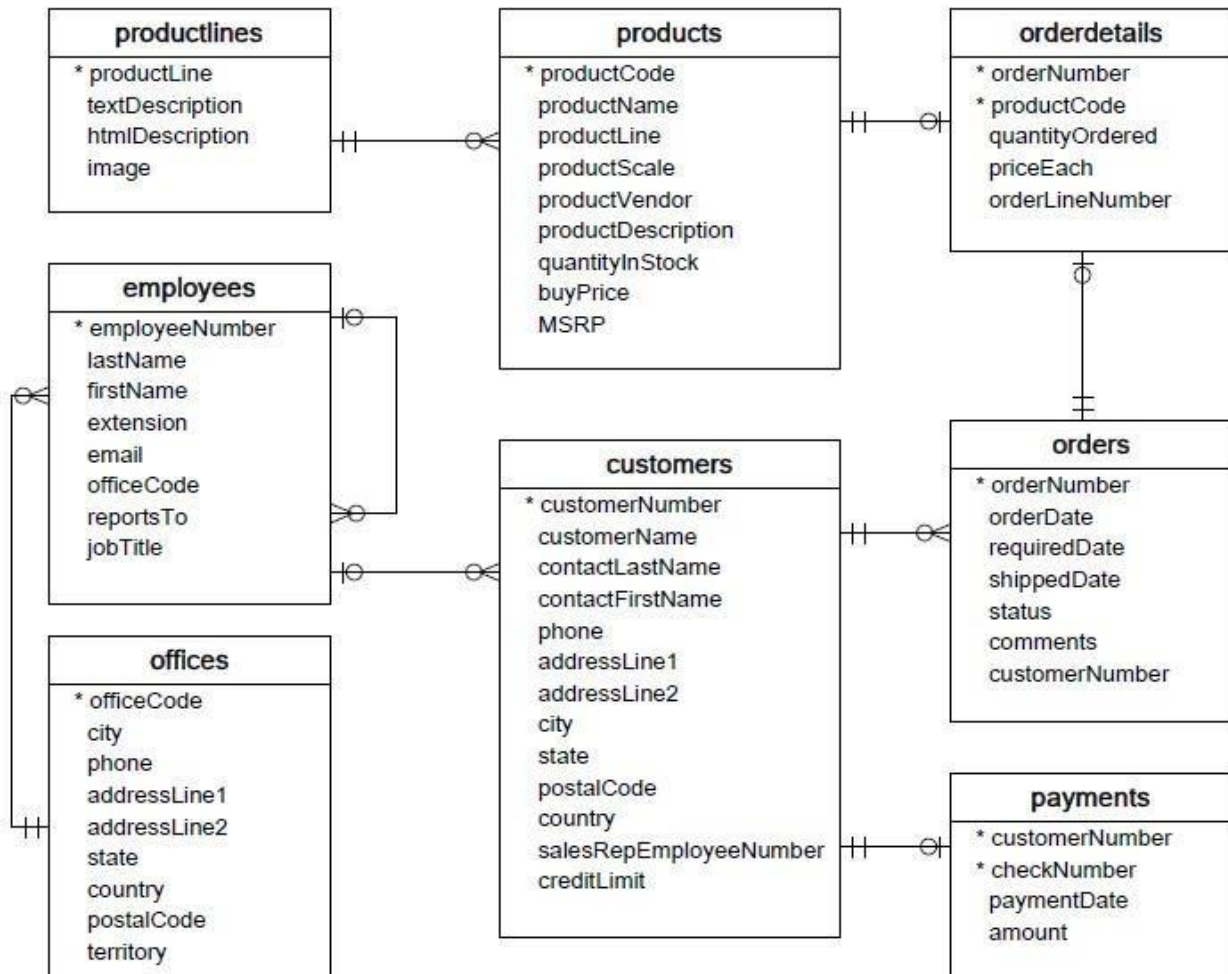# WORKSHEET 3 SQL

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(500) NOT NULL,
            contactLastName varchar(500) NOT NULL,
            contactFirstName varchar(500) NOT NULL,
            phone int NOT NULL,
            addressline1 varchar(500) NOT NULL,
            addressline2 varchar(500)   NOT NULL,
            city varchar(500) NOT NULL,
            state varchar(500) NOT NULL,
            postalcode int NOT NULL,
            country varchar(500) NOT NULL,

```
salesRepEmployeeNumber int NOT NULL,
creditLimit float NOT NULL,
PRIMARY KEY (customerNumber)
);
select * from customers;
```

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(500) NOT NULL,
comments varchar(500) NOT NULL,
customerNumber int NOT NULL,
PRIMARY KEY (orderNumber),
FOREIGN KEY (customerNumber) REFERENCES customers(customerNumber)
);
```

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 COUNT(*) AS Total_Orders
FROM orders
WHERE orderdate='2000-12-05';
```

6. Write a SQL query to show employeNumber, lastName, firstName of all the employees from **employees** table.
```
select employeeNumber,firstName,lastName from employees;
```

7. Write a SQL query to show all orderNumber, customerName of the person who placed the respective order.
```
SELECT orders.orderNumber,customers.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 inanother column.

```
SELECT  CONCAT(firstName , " ", lastName  )as Name ,customers.customerName
FROM employees
INNER JOIN customers
ON employees.salesRepEmployeeNumber = 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.

CREATE TABLE payments (

customerNumber int NOT NULL,

checkNumber int NOT NULL,

paymentDate DATE NOT NULL,

amount INT NOT NULL,

PRIMARY KEY (customerNumber),

FOREIGN KEY (customerNumber) REFERENCES customers(customerNumber));

SELECT paymentDate,SUM(amount) as Total_Amount

FROM payments

WHERE paymentDate = '2019-05-08';

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

CREATE TABLE products (
productCode int NOT NULL,
productName varchar(500) NOT NULL,
productLine varchar(500) NOT NULL,
productVendor varchar(500) NOT NULL,
productDescription varchar(500) NOT NULL,
quantityInstock int NOT NULL,
buyPrice int NOT NULL,
MSRP varchar(500) NOT NULL,
primary key (productCode));

SELECT * from products;

SELECT productName,MSRP,productDescription from products;

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

CREATE TABLE products (
productCode int NOT NULL,
productName varchar(500) NOT NULL,
productLine varchar(500) NOT NULL,
productVendor varchar(500) NOT NULL,
productDescription varchar(500) NOT NULL,
quantityInstock int NOT NULL,
buyPrice int NOT NULL,
MSRP varchar(500) NOT NULL,
primary key (productCode));

SELECT productName, MSRP, productDescription from products;

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

SELECT products.productName,products.productDescription
FROM products
INNER JOIN orderdetails

ON products.productCode = orderdetails.productCode
order by products.productCode desc
limit 1;

13. Write a SQL query to get the name of the state having maximum number of customers.
SELECT customers.state
FROM customers
INNER JOIN orders
ON customers.customerNumber = orders.customerNumber
order by orders.orderNumber desc
LIMIT 1;

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 salesRepEmployeeNumber,CONCAT(firstName , " ", lastName)as Name from employees;

15. Write a SQL query to print the orderNumber, customer Name and total amount paid by the customer for that order (quantityOrdered $\times$ priceEach).
SELECT customers.customerName,orders.orderNumber,orderdetails.priceEach * orderdetails.quantityOrdered as Total
FROM orders
INNER JOIN customers
ON orders.customerNumber = customers.customerNumber
INNER JOIN orderdetails
ON orderdetails.orderNumber = orders.orderNumber