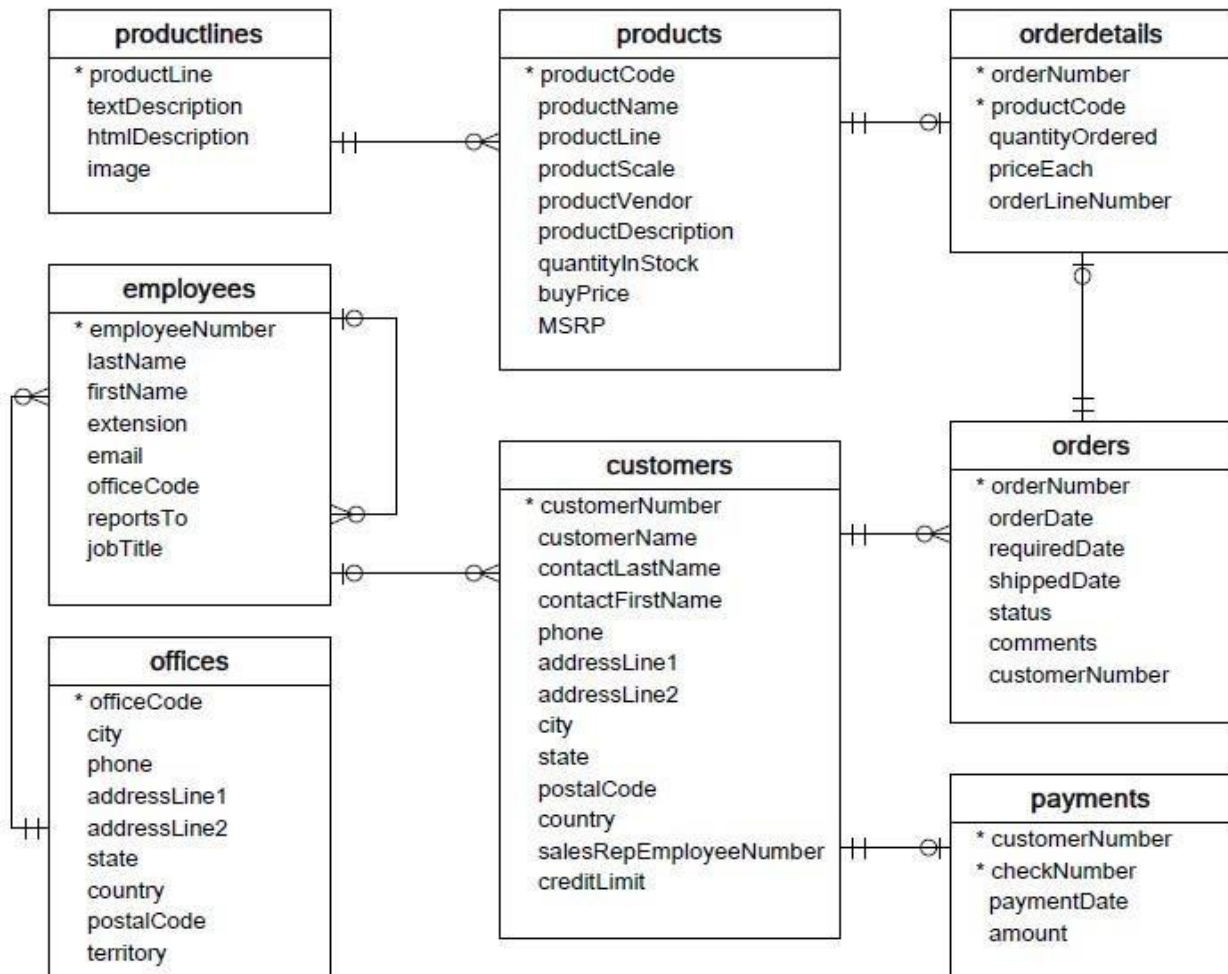# WORKSHEET 3 SQL

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.**

```
mysql> create table customers (
-> customerNumber int,
-> customersName varchar(20),
-> contactLastName varchar(10),
-> contactFirstName varchar(10),
-> phone int,
-> addressLine1 varchar(30),
-> addressLine2 varchar(20),
-> city varchar (10),
```

```
-> state varchar(15),
-> postalCode int,
-> country varchar(15),
-> salesRepEmployeeNumber int,
-> creditLimit int);
```

Query OK, 0 rows affected (1.80 sec)

```
mysql> show tables;
+--------------------+
| Tables_in_sqlsheet |
+--------------------+
| customers          |
+--------------------+
1 row in set (0.00 sec)
```

2. Write SQL query to create table **Orders.**

```
mysql> create table orders (
-> orderNumber int,
-> orderDate Date,
-> requiredDate Date,
-> shippedDate Date,
-> status varchar (15),
-> comments varchar (25),
-> customerNumber int );
```

Query OK, 0 rows affected (0.56 sec)

```
mysql> show tables;
+--------------------+
| Tables_in_sqlsheet |
+--------------------+
| customers          |
| orders             |
+--------------------+
rows in set (0.00 sec)
```

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

mysql> desc customers;

```
+-----------------------+-------------+------+-----+---------+-------+
| Field                 | Type        | Null | Key | Default | Extra |
+-----------------------+-------------+------+-----+---------+-------+
| customerNumber        | int         | YES  |     | NULL    |       |
| customersName         | varchar(20) | YES  |     | NULL    |       |
| contactLastName       | varchar(10) | YES  |     | NULL    |       |
| contactFirstName      | varchar(10) | YES  |     | NULL    |       |
| phone                 | int         | YES  |     | NULL    |       |
| addressLine1          | varchar(30) | YES  |     | NULL    |       |
| addressLine2          | varchar(20) | YES  |     | NULL    |       |
| city                  | varchar(10) | YES  |     | NULL    |       |
| state                 | varchar(15) | YES  |     | NULL    |       |
| postalCode            | int         | YES  |     | NULL    |       |
| country               | varchar(15) | YES  |     | NULL    |       |
| salesRepEmployeeNumber| int         | YES  |     | NULL    |       |
| creditLimit           | int         | YES  |     | NULL    |       |
+-----------------------+-------------+------+-----+---------+-------+
```
13 rows in set (0.05 sec)

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

    mysql> select comments from orders;

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

    mysql> select orderDate,sum(orderDate) from orders;

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

    mysql> select employeNumber, lastName, firstName from employees;

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

    mysql> select orderNumber from orders UNION select customersName from customers;

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

    mysql> select customersName, salesRepEmployeeNumber from employees;

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.

   mysql> select paymentDate, sum(paymentDate) from payments;

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

   mysql> select productName, MSRP, productDescription from products;

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

   mysql> SELECT productName, productDescription, COUNT(*) FROM products GROUP   BY productName ORDER BY productName;

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

   mysql> select city from orders inner join customer on city.customernumber=customers.customerNumber group by city Order by count(orderNumber) desc limit3;

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

   select state from customers group by state Order by Count(customerNumber) desc limit 3;

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,concat(FirstName,LastName) as 'Full 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 orderNumber, customerName, SUM(priceEach * quantityOrdered) total FROM   orderDetails INNER
    JOIN customers USING (productCode) GROUP BY productCode
    ORDER BY total;