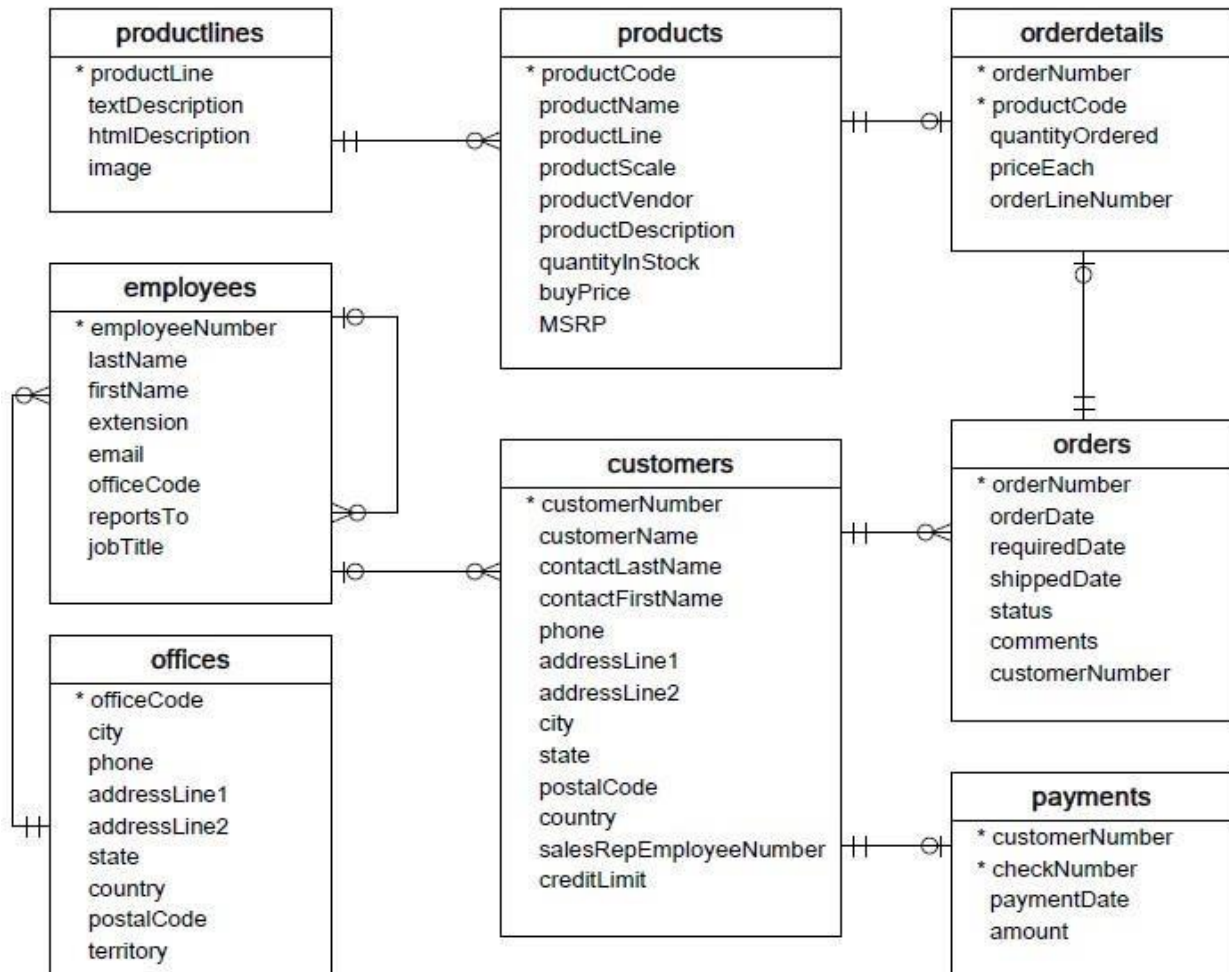# WORKSHEET 3 SQL

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.**

Ans.1) create table Customers
(
customerNumber int not null,
customerName varchar(100) not null,
contactLastName varchar(50) not null,
contactFirstName varchar(50) not null,
phone int 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,
        foreign key(saleRepEmployeeNumber) references employees(employeeNumber),
        primary key(customerNumber)
            );
```

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

Ans.2) create table Orders
```
        (
        orderNumber int not null,
        orderDate date not null,
        requiredDate date not null,
        shippedDate not null,
        status_ varchar(25) not null,
        commments varchar(200),
        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.

Ans.3)   select * from Orders ;

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

Ans.4)   select comments from Orders ;

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

Ans.5)   select count(orderNumber),orderDate from Orders groupby orderDate ;

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

Ans.6)   select employeNumber, lastName, firstName from employees ;

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

Ans.7)   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 inanother column.

Ans.8)   SELECT `customerName` , CONCAT(`firstName`,`lastName`)
              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.

Ans.9)   select sum(amount),paymentDate from payments groupby paymentDate ;

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

Ans.10)   select productName, MSRP, productDescription from products ;

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

Ans.11)   SELECT `productName`,`productDescription` FROM Products
INNER JOIN Orderdetails
ON Products.`productCode` = Orderdetails.`productCode`
GROUP BY Products.`productCode`
ORDER BY SUM(`quantityOrdered`) DESC
LIMIT 1;

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

Ans.12)   SELECT `city` FROM Orders as a
INNER JOIN Customers as b
ON a.`customerNumber` = b.`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.

Ans.13)   select state, count(customerNumber) from Customers orderby count(customerNumber) groupby 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.

Ans.14)   select employeeNumber, concat(firstName, lastName) as fullName 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).

Ans.15)   SELECT `orderNumber`, `customerName`, `quantityOrdered` * `priceEach` as `total amount paid`
FROM OrderDetails as a INNER JOIN Orders as b
ON a.`orderNumber` = b.`orderNumber`
INNER JOIN Customers as c
ON b.`customerNumber` = c.`customerNumber`;