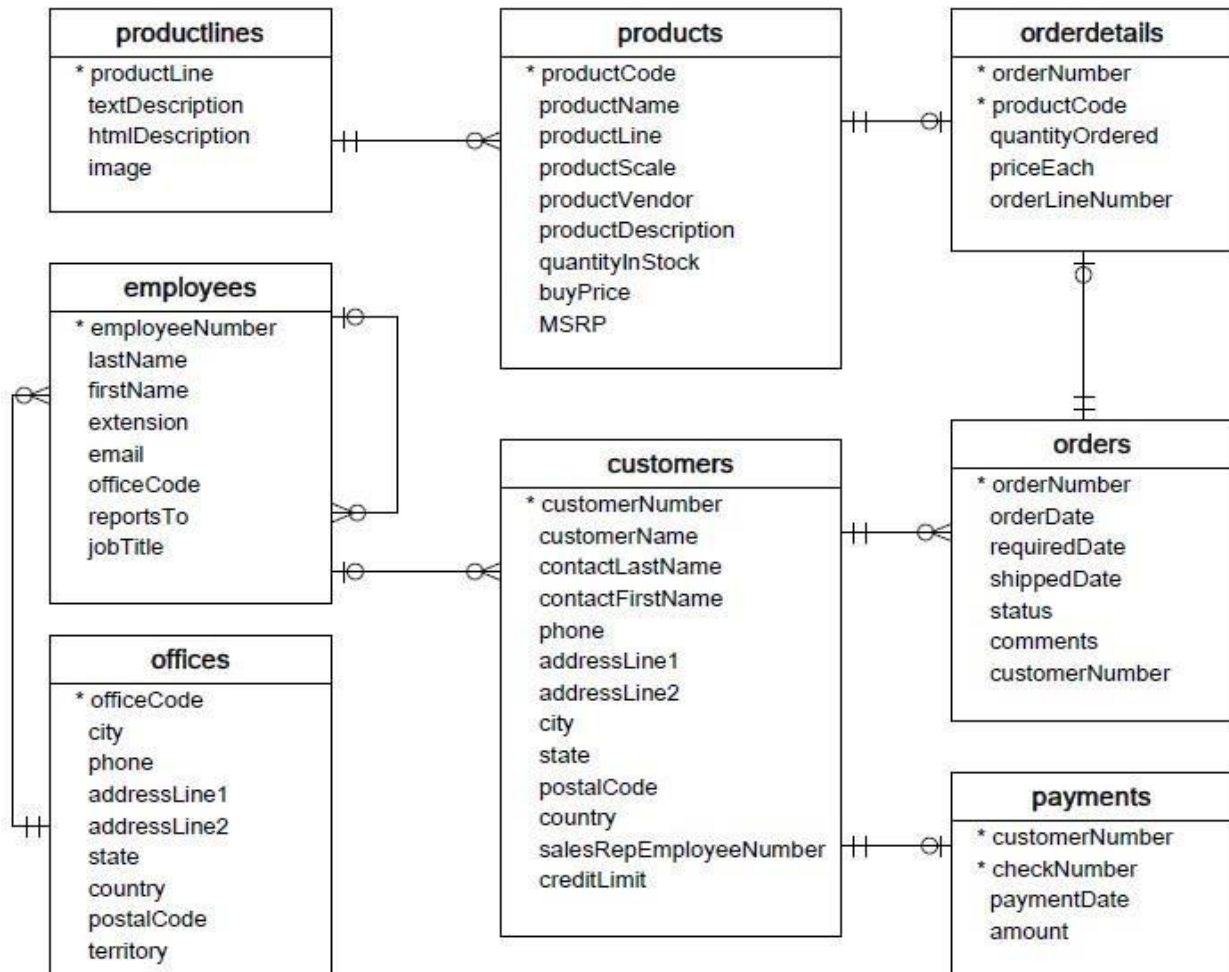# WORKSHEET 3 SQL

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:
    CREATE TABLE Customers.
    (
    CustomerNumber int,
    CustomerName varchar(255),
    ContactLastName varchar(255),
    ContactFirstNamel varchar(255),
    Phone int,
    AddressLine1 varchar(255),
    AddressLine2 varchar(255),
    City varchar(255),
    State varchar(255),

PostalCode int,
Country varchar(255),
saleRepEmployeeNymber int,
creditLimit int
)

2. Write SQL query to create table **Orders.**
   Ans:
   CREATE TABLE Orders.
   (
   orderNumber int,
   orderDate DATE,
   reqiuredDate DATE,
   shippedDate DATE,
   status varchar(255),
   comments varchar(255),
   customerNumber int,
)

3. Write SQL query to show all the columns data from the **Orders** Table.
   Ans: SELECT * FROM Orders;

4. Write SQL query to show all the comments from the **Orders** Table.
   Ans: 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: SELECT orderDate, COUNT (*)
   FROM orders
   GROUP BY orderDate;

6. Write a SQL query to show employeNumber, lastName, firstName of all the employees from **employees** table.
   Ans: 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: SELECT orders.orderNumber, customers.customerName
   FROM orders, customer WHERE 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: SELECT customerName, saleRepEmployeeNumber FROM customers;

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: SELECT paymentDate, SUM(amount)
   FROM payments
   GROUP BY paymentDate;

10. Write a SQL query to show all the products productName, MSRP, productDescription from the **products** table.
    Ans: SELECT productName, MSRP, productDescription FROM products;

11. Write a SQL query to print the productName, productDescription of the most ordered product.
   Ans:
   SELECT products.`productName`, products.`productDescription`,
   SUM(orderDetails.`quantityOrdered`) AS quantity
   FROM `orderDetail` AS o
       INNER JOIN `products` AS p
       ON o.`productCode` = p.`productCode`
   GROUP BY o.`productCode`
   ORDER BY SUM(o.`quantityOrderd`) DESC, p.`producrName` ASC
   LIMIT 3;

12. Write a SQL query to print the city name where maximum number of orders were placed.
   Ans: SELECT city,COUNT(*)
   FROM customers
   GROUP BY city
   ORDER BY COUNT(*) DESC;

13. Write a SQL query to get the name of the state having maximum number of customers.
   Ans: SELECT state,MAX(customerNumbers)
   FROM customers
   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.
   Ans: SELECT employeeNumber,FirstName, CONCAT(firstName,' ', lastName) as FirstName
   FROM employee;

15. Write a SQL query to print the orderNumber, customer Name and total amount paid by the customer for that order (quantityOrdered $\times$ priceEach).
   Ans: SELECT orders.orderNumber, customers.CustomerName, (quantityOdered*oderedDetails.priceEach) as Total_Amount
   from Customers c inner join Orders o
   inner join products p
   inner join orderDetails ord
   on c.CustomerNumbers = o.CustomerNumbers
   and o.OrderNumber = ord.OrderNumber
   and ord.ProductNumber = p.ProductNumbers;