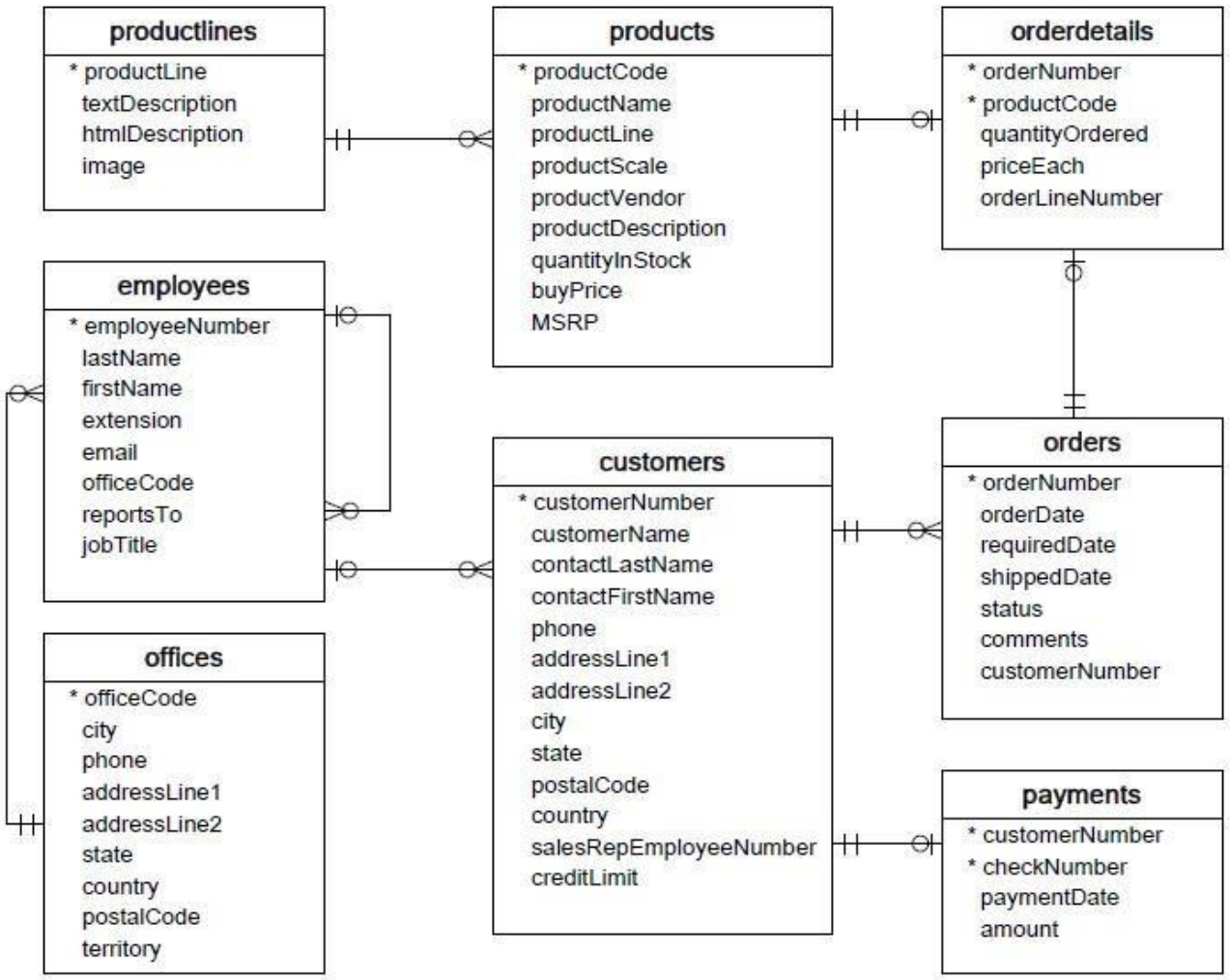
WORKSHEET 3 SQL

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(25),
        contactLastName varchar(25),
        contactFirstName varchar(25),
        phone int,
        addressLine1 varchar(50),
        addressLine2 varchar(50),
        city char(25),
        state char(25),
        postalCode int,
```

```
    country char(25),
    salesRepEmployeeNumber int,
    creditLimit float,
    PRIMARY KEY(customerNumber)
);
```

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

```
CREATE TABLE orders(
    orderNumber int NOT NULL,
    orderDate Date,
    requiredDate Date,
    shippedDate Date,
    status char(25),
    comments varchar(50),
    customerNumber int,
    PRIMARY KEY(orderNumber)
);
```

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) as num_orders
FROM orders
GROUP BY orderDate;
```

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

```
SELECT employeeNumber, lastName, firstName
FROM employees;
```

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

```
SELECT o.orderNumber, c.customerName
FROM orders o INNER JOIN customers c
ON o.customerNumber = c.customerNumber;
```

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

```
SELECT customerName, salesRepEmployeeNumber
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.

```
SELECT paymentDate, SUM(amount) as totalPayment
FROM orders
GROUP BY 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 p.productName, p.productDescription
FROM products p
WHERE(
SELECT o.productCode
FROM orderdetails o
ORDER BY COUNT(o.productCode) desc limit 1);
```

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

```
SELECT c.city
FROM customers c INNER JOIN orders o
ON c.customerNumber = o.customerNumber
GROUP BY c.city
ORDER BY COUNT(o.orderNumber) desc limit 1;
```

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

```
SELECT c.state
FROM customers c
GROUP BY c.state
ORDER BY COUNT(DISTINCT customerNumber) 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 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 × priceEach).

```
SELECT o.orderNumber, c.customerName, (od.quantityOrdered × od.priceEach) AS TotalAmount
FROM orders o INNER JOIN customers c
ON o.customerName = c.customerNumber
INNER JOIN orderdetails od
ON od.orderNumber = o.orderNumber ;
```