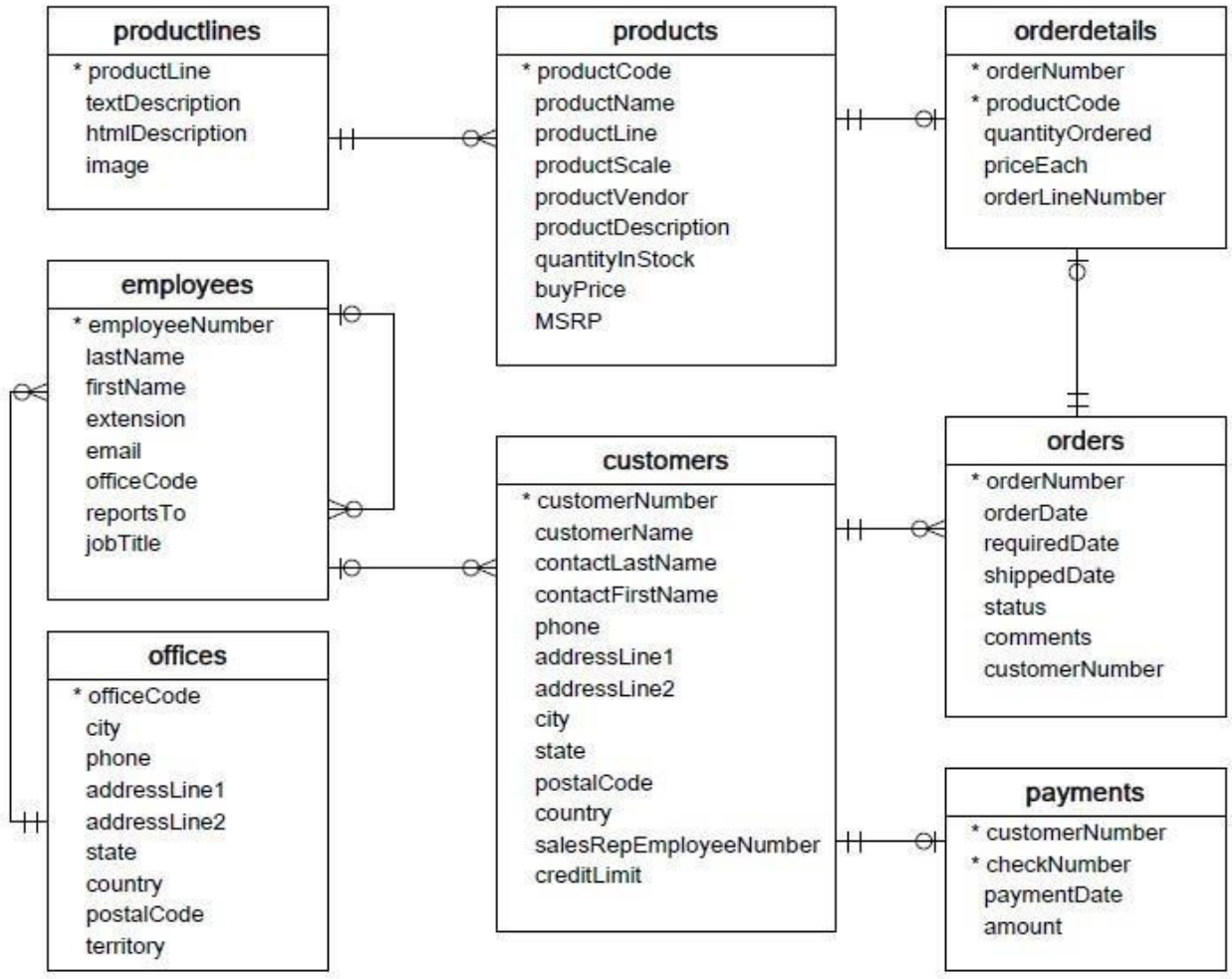
WORKSHEET 3 SQL

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.**

```
db = sqlite3.connect("SQL_Database.db")
cursor = db.cursor()
    cursor.execute("create table Customers(customerNumber primary key, customerName text, contactLastName text, customerFirstName text, phone int, addressLine1 text, addressLine2 text, city text, state text, postalCode int, country text, salesRepEmployeeNumber int, creditLimit int)")
```

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

```
cursor.execute("create table Orders(orderNumber Primary key, orderDate text, requiredDate text, shippedDate text, status text, comments text, customerNumber int)")
```

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

```
r = cursor.execute("select * from Orders")
for row in r:
        print(row)
```

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

```
r = cursor.execute("select comments from Orders")
for row in r:
        print(row)
```

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

```
r = cursor.execute("select orderDate, count(orderDate) from orders group by orderDate")
for row in r:
        print(row)
```

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

```
r = cursor.execute("select employeeNumber, lastName, firstName  from Employees")
for row in r:
    print(row)
```

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

```
r = cursor.execute("select orderNumber, customerName from (SELECT * FROM Orders JOIN Customers using
    (customerNumber))")
for row in r:
        print(row)
```

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

```
r = cursor.execute("select customerName, salesRepEmployeeNumber from Customers")
for row in r:
```

```
    print(row)
```

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.

```
r = cursor.execute("select orderDate, sum(amount) from (SELECT * FROM Orders JOIN Payments using (customerNumber)) orders group by orderDate")
for row in r:
    print(row)
```

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

```
r = cursor.execute("select productName, MSRP, productDescription from products")
for row in r:
    print(row)
```

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

```
r = cursor.execute("select productName, productDescription from products join (select productCode, sum(quantityOrdered) as totalQuantity from orderdetails GROUP BY productCode) using (productCode)")
for row in r:
    print(row)
```

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

```
r = cursor.execute("select City, count(city) from customers group by city")
for row in r:
    print(row)
```

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

```
r = cursor.execute("select state, count(state) from customers group by state")
for row in r:
    print(row)
```

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.

```
r = cursor.execute("select employeeNumber, firstName || ' ' || lastName as fullName from employees")
for row in r:
```

```
print(row)
```

15. Write a SQL query to print the orderNumber, customer Name and total amount paid by the customer for that order (quantityOrdered × priceEach).

```
r = cursor.execute("select orderNumber, customerName, totalprice from (select * from customers join orders using (customerNumber)) join (select orderNumber, quantityOrdered * priceEach as totalprice from orderdetails) using (orderNumber)")
for row in r:
    print(row)
```