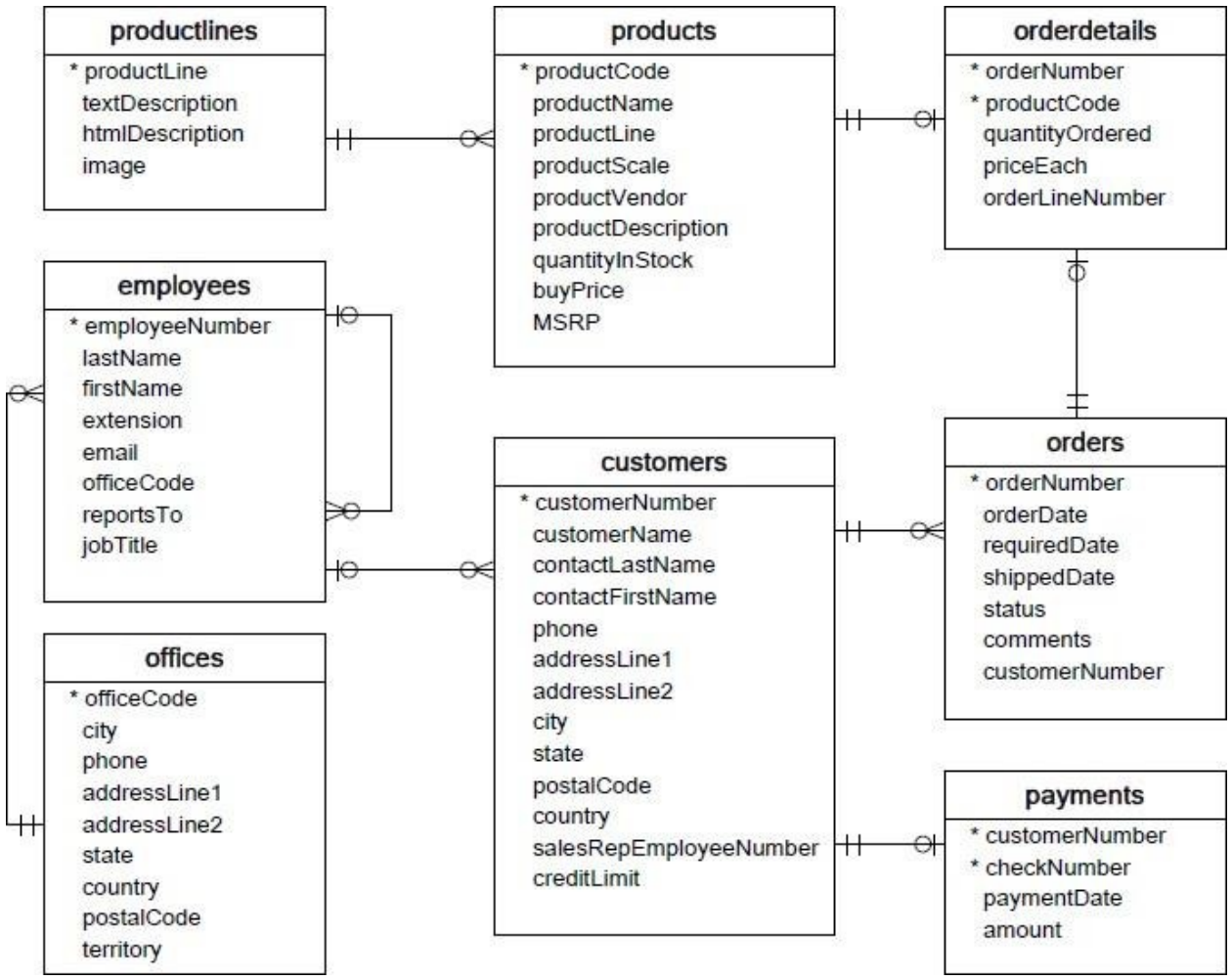
WORKSHEET 4 SQL

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.
- **Product Lines**: stores a list of product line categories.
- **Orders**: stores sales orders placed by customers.
- **Order Details**: 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 towhom.
- **Offices**: stores sales office data.

QUESTIONS:

1. Write a SQL query to show average number of orders shipped in a day (use Orders table).

   Answer.

```
    sql_command = """SELECT date(shippeddate),
        AVG(QuantityOrdered) AS num_orders
    FROM Orders, OrderDetails
    WHERE OrderDetails.orderNo =
        Orders.orderNo GROUP BY
        date(shippeddate);"""
    select= cursor.execute(sql_command)

        for i in select

        print (i)
```

2. Write a SQL query to show average number of orders placed in a day.

```
        Answer.
    sql_command = """SELECT date(orderdate),
        AVG(QuantityOrdered) FROM Orders, OrderDetails
    WHERE OrderDetails.orderNo =
        Orders.orderNo GROUP BY
        date(orderdate);"""
    select= cursor.execute(sql_command)
  for i in select:
print(i)
```

3. Write a SQL query to show the product name with minimum MSRP (use Products table).

Answer.

```
    sql_command = """SELECT ProductName, MIN(MSRP) FROM
        Products GROUP BY MSRP;"""
    select= cursor.execute(sql_command)
  for i in select:
print(i)
```

4. Write a SQL query to show the product name with maximum value of stockQuantity.
   Answer.

```
sql_command = """SELECT ProductName, MAX(QuantityInStock)
    FROM Products GROUP BY QuantityInStock;"""
select= cursor.execute(sql_command)
for i in select:
print(i)
```

5. Write a query to show the most ordered product Name (the product with maximum number of orders).
   Answer.

```
sql_command = """SELECT
    Products.ProductName,
    SUM(OrderDetails.QuantityOrdered)
FROM
    OrderDetails
    INNER JOIN
    Products
ON Products.ProductCode=
    OrderDetails.ProductCode GROUP BY
    OrderDetails.QuantityOrdered
ORDER BY SUM(OrderDetails.QuantityOrdered)
    DESC;""" select= cursor.execute(sql_command)
for i in select:
print(i)
```

6. Write a SQL query to show the highest paying customer Name.
   Answer.

```
sql_command = """SELECT CustomerName , MAX(Amount) AS
    Amount FROM Customers, Payment
WHERE Customers.CustomerNo=
    Payment.CustomerNo GROUP BY
    CustomerName
ORDER BY MAX(Amount) DESC;"""
```

7. Write a SQL query to show cutomerNumber, customerName of all the customers who are from Melbourne city.
   Answer.

```
sql_command = """SELECT CustomerNo, CustomerName FROM
    Customers WHERE City = "Melbourne";"""
select= cursor.execute(sql_command)
for i in select:
print(i)
```

8. Write a SQL query to show name of all the customers whose name start with “N”.
   Answer.

```
sql_command = """SELECT CustomerName FROM
    Customers WHERE CustomerName LIKE "N%";"""
select= cursor.execute(sql_command)
for i in select:
print(i)
```

9. Write a SQL query to show name of all the customers whose phone start with ‘7’ and are from city ‘LasVegas’.
   Answer.

```
sql_command = """SELECT CustomerName, CreditLimit, City FROM
    Customers WHERE CreditLimit < 1000 AND City ="Las Vegas" OR City
    ="Nantes" OR City = "Stavern";"""
select= cursor.execute(sql_command)
for i in select:
print(i)
```

10. Write a SQL query to show name of all the customers whose creditLimit < 1000 and city is either “Las Vegas” or ”Nantes” or “Stavern”.
    Answer.

```
sql_command = """SELECT CustomerName, CreditLimit, City FROM
    Customers WHERE CreditLimit < 1000 AND City ="Las Vegas" OR City
    ="Nantes" OR City = "Stavern";"""
select= cursor.execute(sql_command)
for i in select:
print(i)
```

11. Write a SQL query to show all the orderNumber in which quantity ordered <10.
    Answer.

```
sql_command = """SELECT CustomerName, CreditLimit, City FROM
    Customers WHERE CreditLimit < 1000 AND City ="Las Vegas" OR City
    ="Nantes" OR City = "Stavern";"""
select= cursor.execute(sql_command)
for i in select:
print(i)
```

12. Write a SQL query to show all the orderNumber whose customer Name start with letter ‘N’**.**
Answer.

```
sql_command = """SELECT Orders.orderNo, Customers.CustomerName
    FROM Orders, Customers
ON Orders.CustomerNo
    =Customers.CustomerNo WHERE
```

```
Customers.CustomerName LIKE "N%" ;"""
```

13. Write a SQL query to show all the customerName whose orders are “Disputed” in status.
Answer.

```
sql_command = """SELECT
    CustomerName, status FROM
    Customers, Orders
ON Orders.CustomerNo
    =Customers.CustomerNo WHERE
    status= "Disputed";"""
select= cursor.execute(sql_command)
for i in select:
print(i)
```

14. Write a SQL query to show the customerName who made payment through cheque with checkNumber starting with H and made payment on “2004-10-19”.
Answer.

```
sql_command = """SELECT CustomerName, ChequeNo,
    PaymentDate FROM Customers
INNER JOIN Payment
ON Customers.CustomerNo = Payment.CustomerNo
WHERE Payment.ChequeNo LIKE "H%" AND Payment.PaymentDate=
    "2004-10- 19";"""
select= cursor.execute(sql_command)
for i in select:
print(i)
```

15. Write a SQL query to show all the checkNumber whose amount > 1000.
Answer.

```
sql_command = """SELECT ChequeNo, Amount FROM
    Payment WHERE Amount>1000;"""
select= cursor.execute(sql_command)
for i in
 select:
 print(i)
```