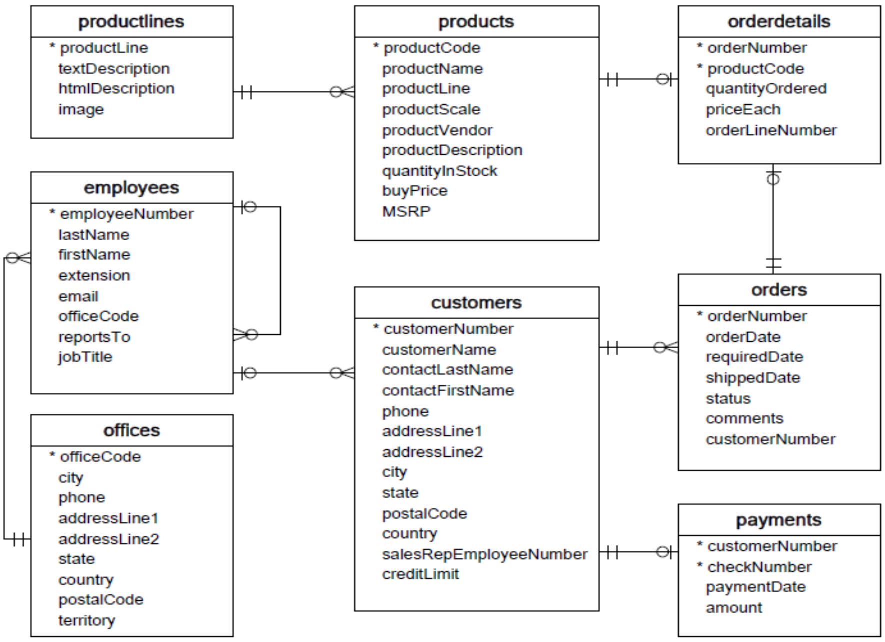
SQL – WORKSHEET 3

Please go through the below ERD before referring the answers.



- **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.

Answers:

1.
```
CREATE TABLE `customers` (`customerNumber` int(11) NOT NULL,
                          `customerName` varchar(50) NOT NULL,
                          `contactLastName` varchar(50) NOT NULL,
                          `contactFirstName` varchar(50) NOT NULL,
                          `phone` varchar(50) NOT NULL,
                          `addressLine1` varchar(50) NOT NULL,
                          `addressLine2` varchar(50) DEFAULT NULL,
                          `city` varchar(50) NOT NULL,
                          `state` varchar(50) DEFAULT NULL,
                          `postalCode` varchar(15) DEFAULT NULL,
                          `country` varchar(50) NOT NULL,
                          `salesRepEmployeeNumber` int(11) DEFAULT NULL,
                          `creditLimit` decimal(10,2) DEFAULT NULL,
                          PRIMARY KEY (`customerNumber`),
                          KEY `salesRepEmployeeNumber` (`salesRepEmployeeNumber`),
                          FOREIGN KEY (`salesRepEmployeeNumber`)
                          REFERENCES `employees` (`employeeNumber`)
                          );
```

```
2.  CREATE TABLE `orders` (`orderNumber` int(11) NOT NULL,
                           `orderDate` date NOT NULL,
                           `requiredDate` date NOT NULL,
                           `shippedDate` date DEFAULT NULL,
                           `status` varchar(15) NOT NULL,
                           `comments` text,
                           `customerNumber` int(11) NOT NULL,
                            PRIMARY KEY (`orderNumber`),
                            KEY `customerNumber` (`customerNumber`),
                            FOREIGN KEY (`customerNumber`)
                            REFERENCES `customers` (`customerNumber`)
                          );
```

```
3.  SELECT * FROM Orders;
```

```
4.  SELECT `comments` FROM Orders;
```

```
5.  SELECT `orderDate`, COUNT(`orderNumber`) as `Total number of orders`
    FROM Orders
    GROUP BY `orderDate`;
```

```
6.  SELECT `employeeNumber` ,`lastName` ,`firstName` FROM Employees;
```

```
7.  SELECT `orderNumber` ,`customerName`
    FROM Orders INNER JOIN customers
    ON orders.`customerNumber`= customers.`customerNumber`;
```

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```
8.  SELECT `customerName` , CONCAT(`firstName`,`lastName`)
    FROM employees INNER JOIN customers
    ON Employees.`employeeNumber`= customers.`salesRepEmployeeNumber`;
```

```
9.  SELECT `paymentDate`, SUM(amount)
    FROM payments
    GROUP BY `paymentDate`;
```

```
10. SELECT `productName`,`MSRP`,`productDescription` FROM products;
```

```
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. 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. SELECT `state` FROM Customers
    GROUP BY `state`
    ORDER BY COUNT(`customerNumber`) DESC
    LIMIT 1;

14. SELECT `employeeNumber`, concat(`firstName`,`lastName`) as `Full name`  FROM Employees;

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`;
```

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