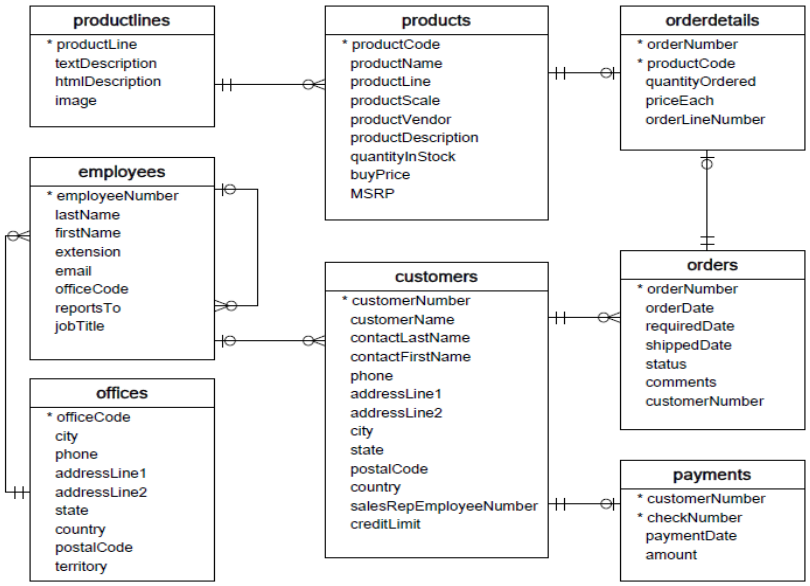
WORKSHEET-3 ANSWER KEY

SQL

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`;

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`;