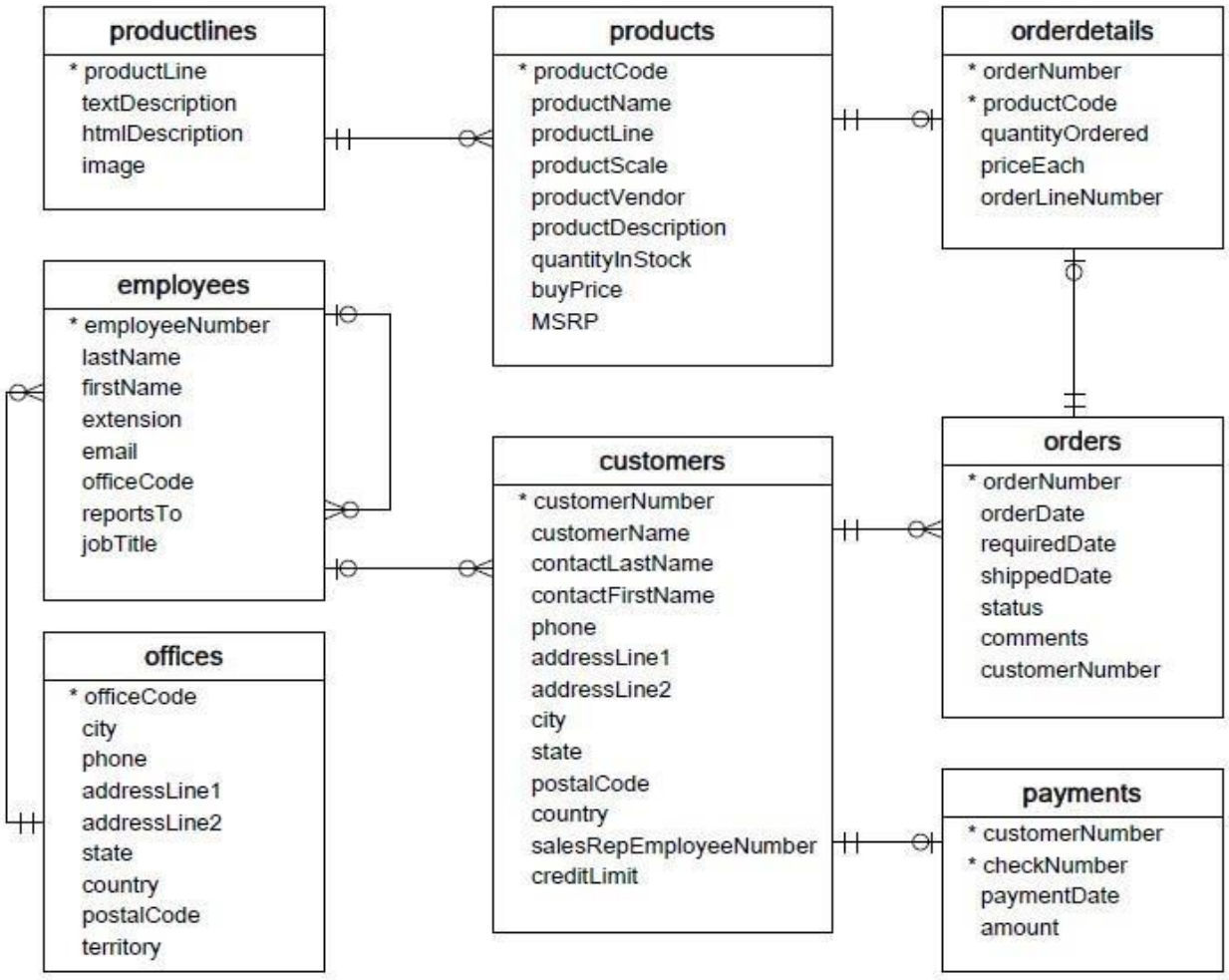
WORKSHEET 3 SQL

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.**
2. Write SQL query to create table **Orders.**
3. Write SQL query to show all the columns data from the **Orders** Table.
4. Write SQL query to show all the comments from the **Orders** Table.
5. Write a SQL query to show orderDate and Total number of orders placed on that date, from **Orders** table.

6. Write a SQL query to show employeNumber, lastName, firstName of all the employees from **employees** table.
7. Write a SQL query to show all orderNumber, customerName of the person who placed the respective order.
8. Write a SQL query to show name of all the customers in one column and salerepemployee name inanother column.

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.
10. Write a SQL query to show all the products productName, MSRP, productDescription from the **products** table.
11. Write a SQL query to print the productName, productDescription of the most ordered product.
12. Write a SQL query to print the city name where maximum number of orders were placed.
13. Write a SQL query to get the name of the state having maximum number of customers.
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.
15. Write a SQL query to print the orderNumber, customer Name and total amount paid by the customer for that order (quantityOrdered × priceEach).

Answers:

```
1. create table Customers
(CustomerNumber int,
customerName varchar(20),
contactLastName varchar(20),
contactFirstName varchar(20),
phone int,
addressline1 varchar(50),
addressline2 varchar(50),
city varchar(50),
state varchar(50),
postalcode int,
country varchar(20),
salesRepEmployeeNumber int,
creditlimit int);

2. create table Orders
(ordernumber int,
orderDate date,
requireddate date,
shippeddate date,
status varchar(20),
comments varchar(80),
CustomerNumber int);

3. describe Orders;

4. select * from orders;

5. select count(*)
from orders
where orderdate='2023-01-01';

6. select employeeNumber,lastname,firstname from employees;

7. select o.ordernumber, customername from customers c
inner join orders o
on o.customernumber=c.customernumber
where o.ordernumber=21;

8. select c.customername,(select concat( firstname,lastname))as 'Employee Name' from employees e
inner join customers c
on c.salesRepEmployeeNumber=e.employeenumber;
```

9. create table payments
(customerNumber int,
checkNumber int,
paymentdate date,
amount int);

```
select paymentdate, amount as 'Total Payment'
 from payments
 where paymentdate="2023-01-01";
```

10. create table products
```
 (productcode int,
 productname varchar(20),
 productline varchar(20),
 productscale varchar(20),
 productvendor varchar(20),
 productdescription varchar(30),
 quantityInstock int,
 buyprice int,
 MSRP int);
```

```
select productName,MSRP,productdescription
 from products;
```

11.
```
SELECT p.productname, p.productdescriotion, SUM(od.quantityOrdered) AS 'Quantity'
from orderdetails od
inner join Products p
on od.productcode = p.productcode
group by od.productcode
order by SUM(od.quantityOrdered) desc, p.productname asc
limit 1;
```

12.
```
select city from customers c
inner join orders o
on o.customerNumber=c.customernumber
group by c.customernumber
order by count(o.ordernumber) desc
limit 1;
```

13.
```
select state from customers
group by customernumber
order by count(customernumber) desc
limit 1;
```

14.
```
select employeenumber,(select concat( firstname,lastname))as 'Employee Name' from employees;
```

15.
```
select o.ordernumber as 'Order No.',
c.customername as'Customer Name',
(select(quantityOrdered*priceeach)) as 'Total Amount' from orderdetails od
inner join orders o
on   o.ordernumber=od.ordernumber
inner join customers c
on c.customernumber=o.customernumber;
```