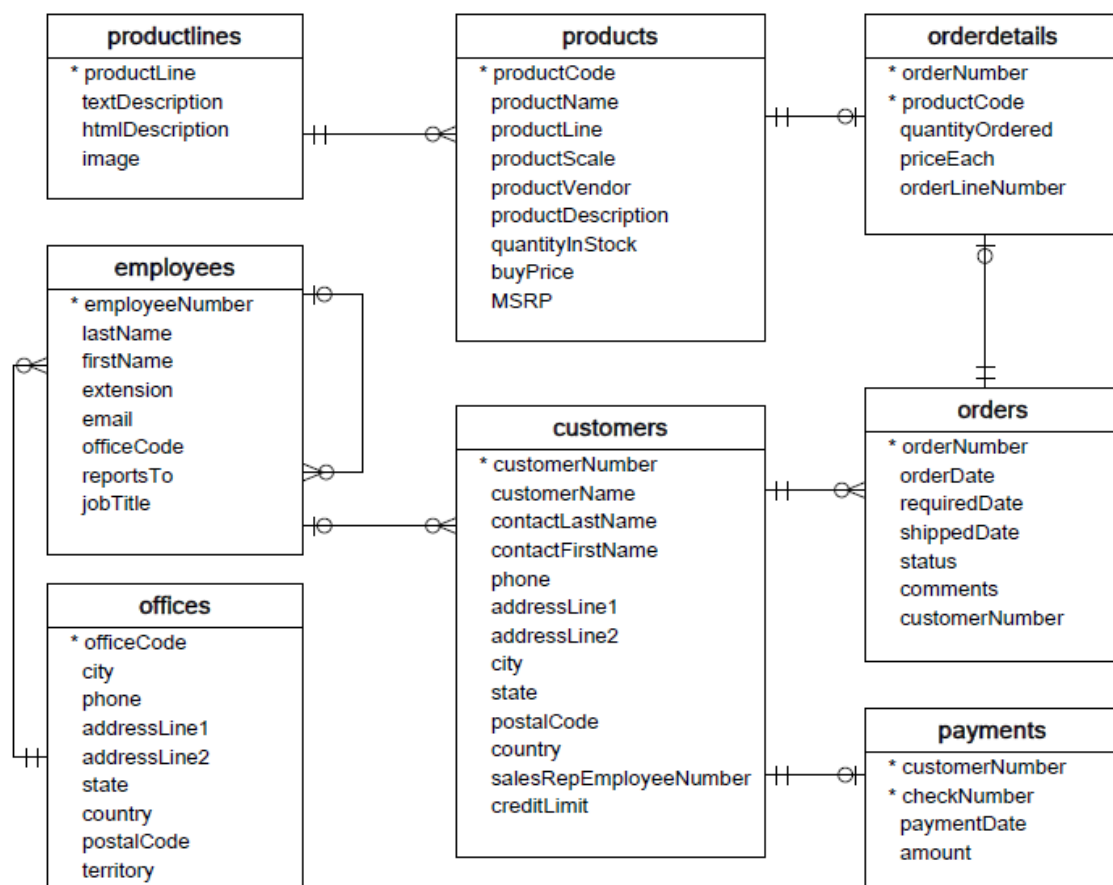


## Project 2 – A Classic Retailer Database

The MySQL sample database schema consists of the following tables:

- **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. Your manager wants to know among all shipped orders, whether there is late shipment (ship date > customer require date)?
2. Use table orders and orderdetails to check the total sales and revenue by month:
  - Use the orderdate column to create the month column
  - Sales = quantityordered
  - Revenue = quantityordered \* price
  - Make sure the order is shipped, otherwise we can not assume the sales actually has happened
3. Create a report showing total sales, revenue, profit by each product under each month:
  - Profit = quantityOrdered \* priceEach - quantityOrdered\*buyPrice
  - Also, only count the shipped orders
4. Rank the products by average sales per month, from highest to lowest
  - You may want to create a table first by using question 4's output
5. Similar to question 4, create a report showing total sales, revenue, profit by each productline under each month, add the description for the productline, and order by profit with descending order
6. Create a table showing all employees under each office city.
  - key columns in the table: city name, employee number, name, title and how many people report to the employee
  - also, make sure if no one report to the employee, then the number should be 0 - do not leave NULL value in the table. Hint: use UPDATE statement