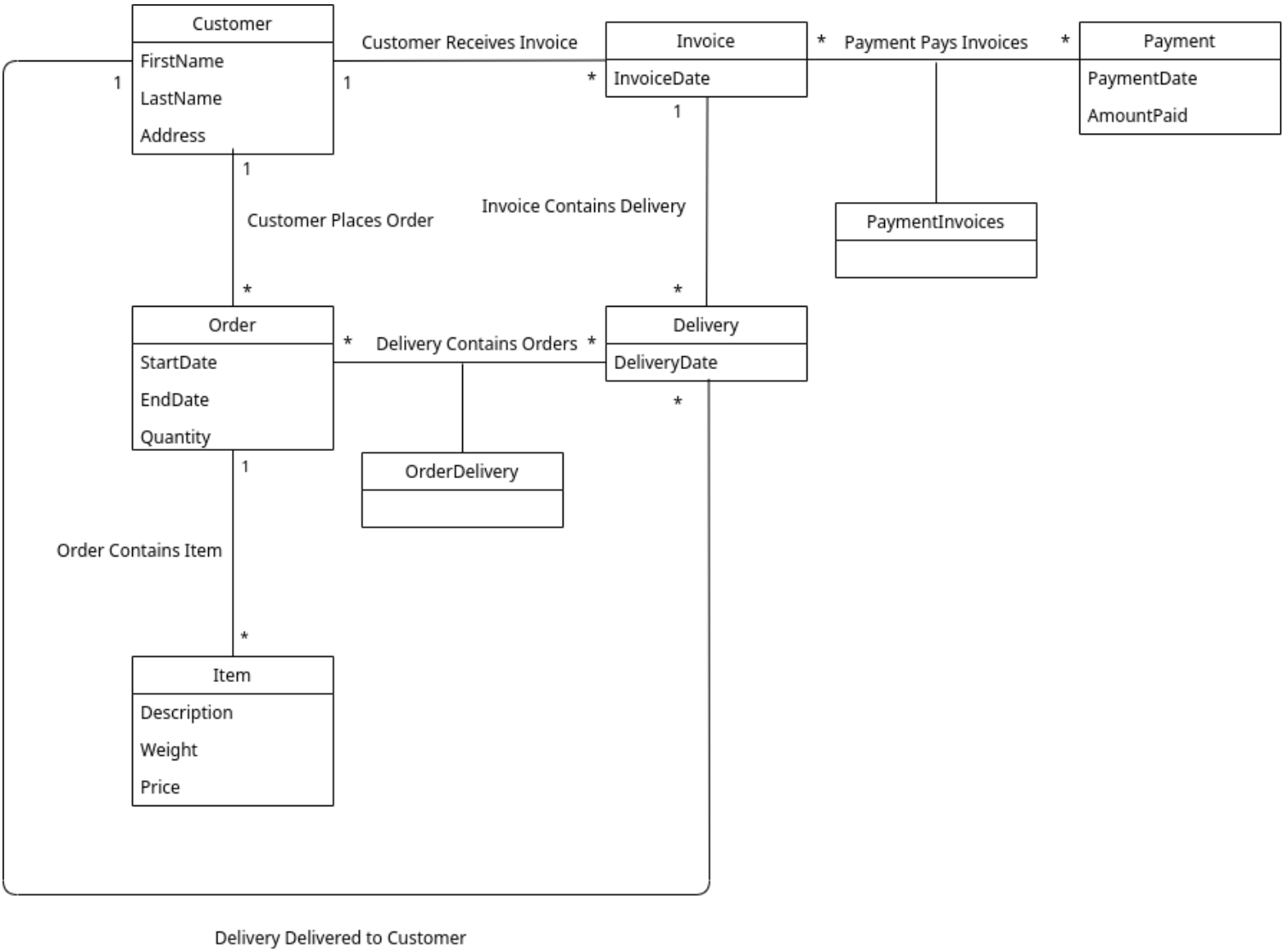
UML Diagram



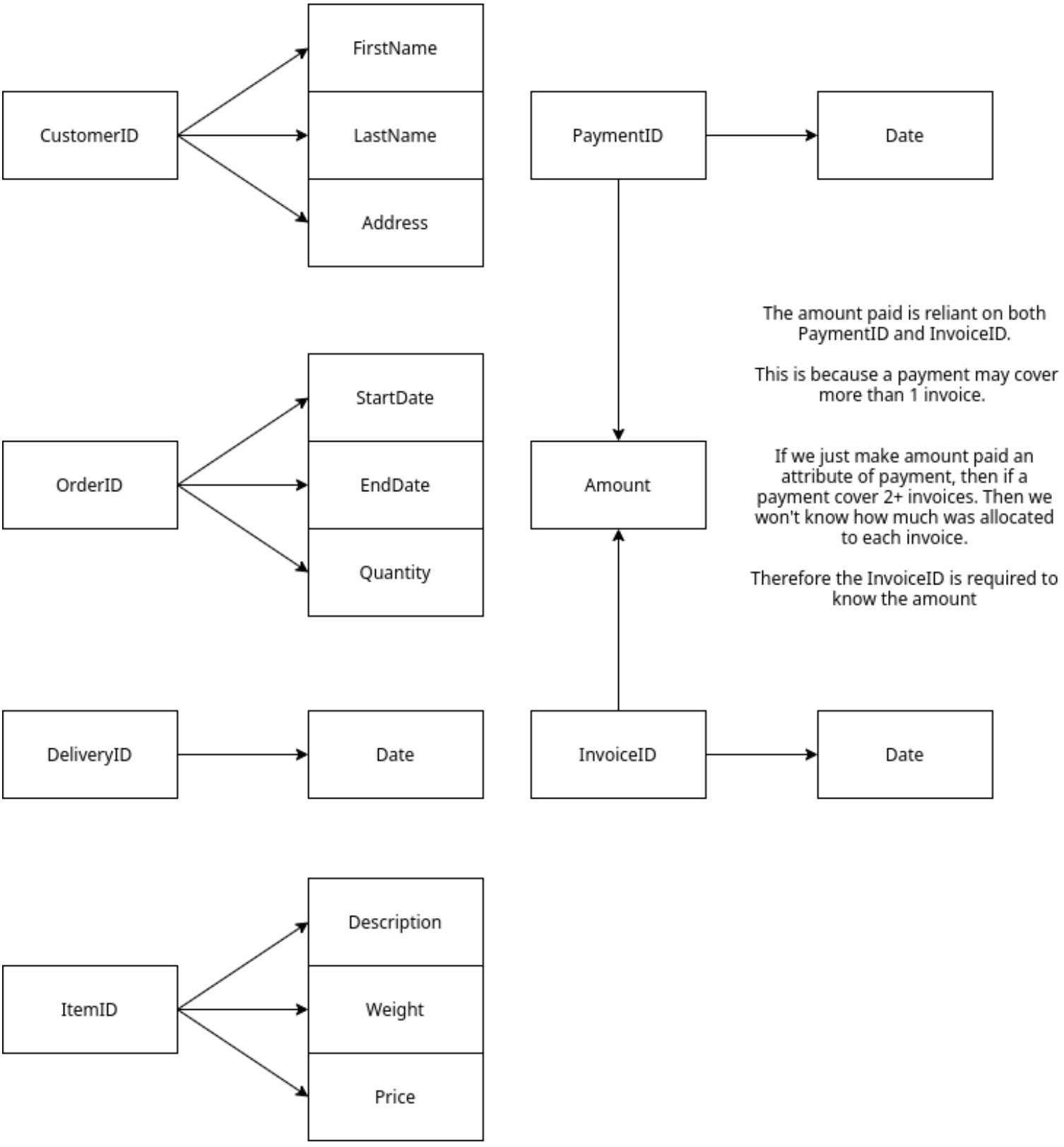
The reason for the many to many relationship between delivery and order is that:

- A delivery may contain multiple unique orders.
- An order is delivered multiple times from its start date and end date.

The reason for the many to many relationship between invoices and payments is that:

- A payment may cover many unique invoices.
- An invoice may be paid in multiple payments.

Functional Dependency Diagram



Customer(CustomerID, FirstName, LastName, Address);

Order(OrderID, CustomerID, StartDate, EndDate, Quantity);

Item(ItemID, OrderID, Description, Weight, Price);

Delivery(DeliveryID, InvoiceID, Date);

OrderDelivery(DeliveryID, OrderID, CustomerID);

Invoice(InvoiceID, CustomerID, Date);

Payment(PayementID, Date);

PaymentInvoice(PaymentID, InvoiceID, AmountPaid);

Assumptions:

- The customer is only one person. E.g A husband and wife would only put the wife's name down
- Customers only have 1 address
- In an order the only the quantity value is used to denote the quantity instead of adding in an item twice. So, an invalid order would be **1xApples, 1xApples 2xBananas** instead of **2xApples, 2xBananas.**
- The customer only pays for one invoice at a time