# Creation of Online Shoe store and Database

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# Online Shoe Store: ICT 301 Final

## System Overview

For this final project I decided to create my database system based on an online shoe store. This system is designed to help the users keep track of many different aspects of the business such as orders, customers, products, etc. After registering and logging in, the users have access to the eight different database tables that were coded in with MySQL. Four of the tables are modifiable through the online website while the other four are just viewable. I decided to do it this way because in a real business database some of the information would be automated such as order information and transaction records. So, the four databases I allowed access to modify were customer information, product information, warehouse information, and vendor information. The modifications that users can do include adding new data, deleting old data, and modifying the existing data. The four databases that must be accessed through MySQL and have no modification options online are inventory information (stock), orders, transaction records, and shopping carts. These four data tables being limited in access makes sure that no one's orders, transaction history, or shopping carts get adjusted. Overall, I think my system does what I set out for it to do.

## Stakeholders

The primary stakeholders for this database are administrators and employees of the business. This database provides an easy way to manage data that is imperative to the business's success. The customers and vendors are secondary stakeholders. Customers can use the database to view information on their orders or products offered and vendors can use the database to review information about the business such as pricing and stock.

## Purpose and Function

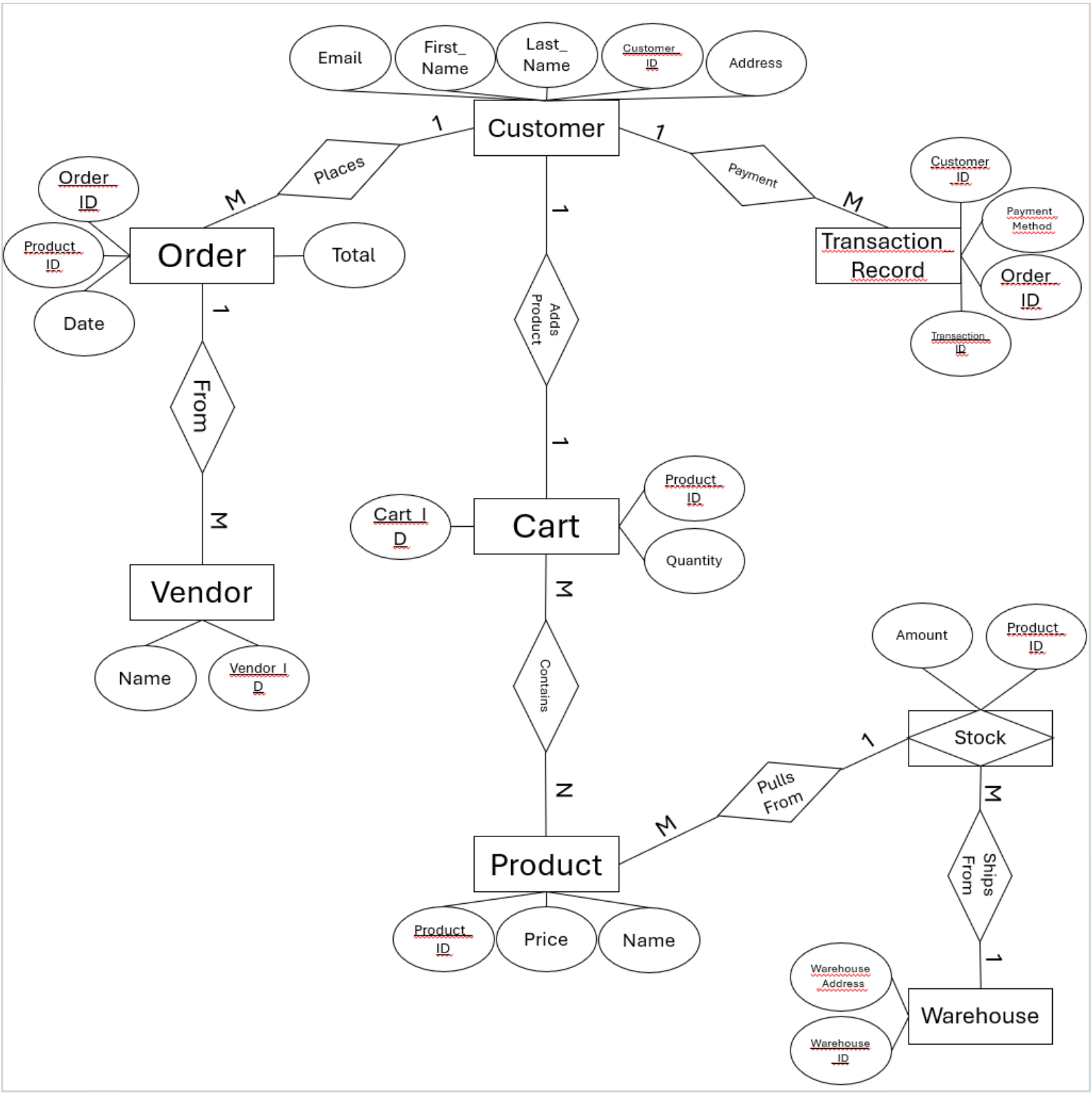
When creating this database, the primary purpose I had in mind was more on the business side. I wanted to create a database that allowed easy modifications and viewing of the important data for the business. However, this database can be an excellent tool for vendor and customer use as well. The website used to access the database has multiple functions that make viewing and modifying data easy. Users can freely add, delete, search for, and modify data in appropriate data tables with the press of a button.

**Entities and Attributes**

1. Customer: holds all customer information
    a. Email
    b. First Name
    c. Last Name
    d. Customer ID
    e. Address
2. Transaction Record: all information for orders, “receipt”
    a. Customer ID
    b. Payment Method
    c. Order ID
    d. Transaction ID
3. Order
    a. Order ID
    b. Product ID
    c. Date
    d. Total

4. Vendor: where product is being ordered from
    a. Name
    b. Vendor ID
5. Cart: storage for products while shopping
    a. Cart ID
    b. Product ID
    c. Quantity
6. Product: information and items offered
    a. Product ID
    b. Price
    c. Name
7. Stock: how much product is available
    a. Product ID
    b. Amount
8. Warehouse: location of product
    a. Warehouse ID
    b. Warehouse Address

**E-R Diagram**


Email
First_ Name
Last_ Name
Customer ID
Address
Customer
1
Places
M
Order
1
Payment
M
Transaction Record
Order ID
Product ID
Date
Total
Customer ID
Payment Method
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1
From
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Cart_I D
Cart
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Quantity
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Contains
N
Amount
Product ID
Stock
1
Pulls From
M
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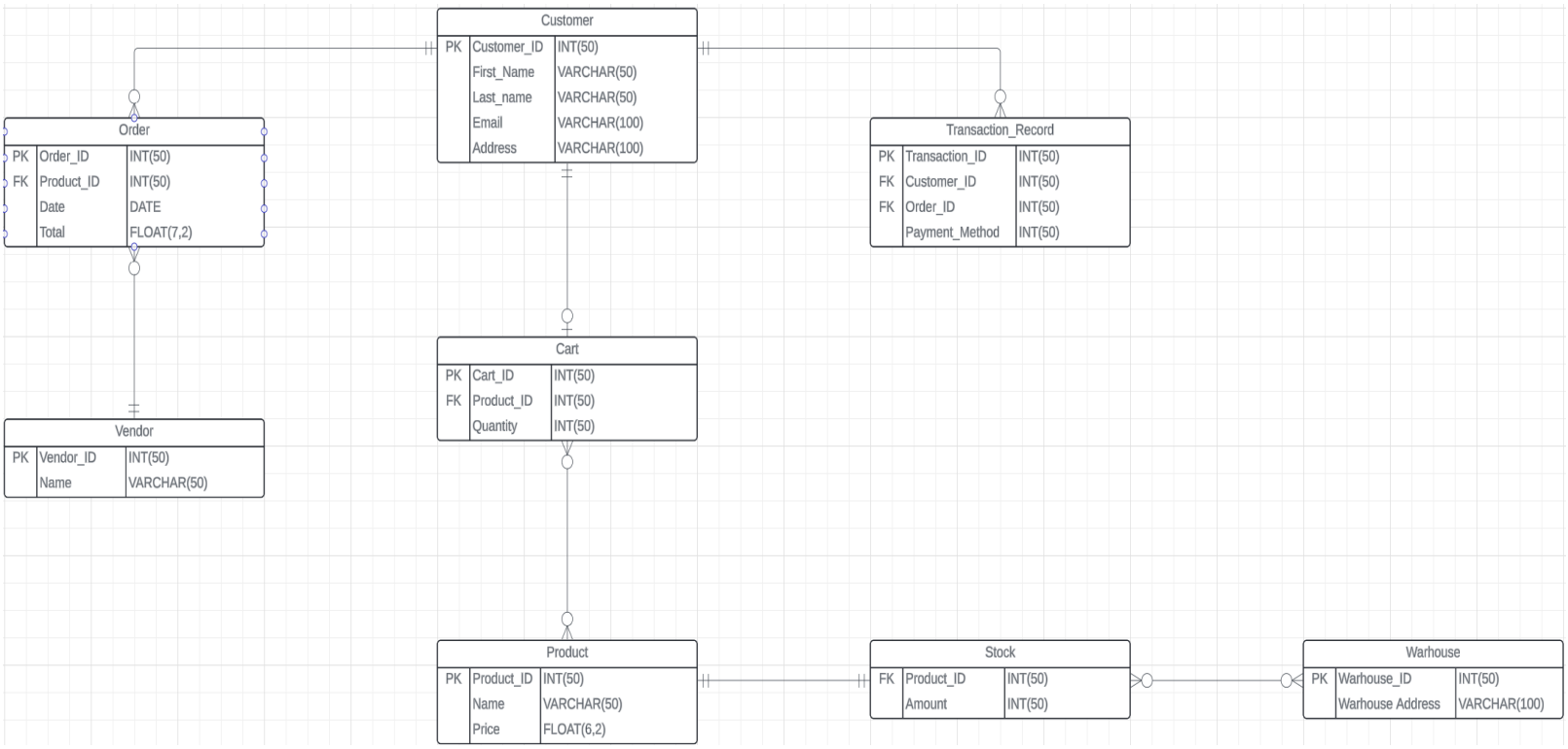
Ships From
1
Product
Product ID
Price
Name
Warehouse Address
Warehouse ID
Warehouse

**Relational Tables**




**Five Reports**

1. Inventory: Shows product ID, name price, and amount in stock

| Product_ID | Name | Price | Amount |
|---|---|---|---|
| 1 | Running_Shoes | 49.99 | 500 |
| 2 | Boots | 79.99 | 1000 |
| 3 | Sandals | 29.99 | 750 |

Code:

```
SELECT Product.Product_ID, Product.Name, Product.Price, Stock.Amount
FROM Product
LEFT JOIN Stock
ON Product.Product_ID=Stock.Product_ID
```

2. Orders with Products: Shows specifically what was ordered

| Order_ID | Product_ID | Date | Name | Price |
|---|---|---|---|---|
| 1 | 1 | 2024-01-07 | Running_Shoes | 49.99 |
| 2 | 3 | 2023-05-25 | Sandals | 29.99 |
| 3 | 2 | 2023-11-15 | Boots | 79.99 |

Code:

```
SELECT Orders.Order_ID, Orders.Product_ID, Orders.Date, Product.Name, Product.Price
FROM Orders
LEFT JOIN Product
ON Orders.Product_ID=Product.Product_ID
```

3. All information about a completed order

| Transaction_ID | Customer_ID | Order_ID | Payment_Method | First_Name | Last_Name | Email | Address | Product_ID | Date |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | 1 | 12345678 | Brian | Clark | bncl233@uky.edu | 100 East St. | 1 | 2024-01-07 |
| 2 | 2 | 2 | 87654321 | Jadyn | Sayeed | jadyn@email.com | 100 West St. | 3 | 2023-05-25 |
| 3 | 3 | 3 | 13579246 | Jamal | Sayeed | jamal@email.com | 100 North St. | 2 | 2023-11-15 |

Code:

```
SELECT FROM Transaction_Record.Transaction_ID, Transaction_Record.Customer_ID,
Transaction_Record.Order_ID, Transaction_Record.Payment_Method, Customer.First_Name,
Customer.Last_Name, Customer.Email, Customer.Address, Orders.Product_ID, Orders.Date,
FROM Transaction_Record
LEFT JOIN Customer
ON Transaction_Record.Customer_ID=Customer.Customer_ID
LEFT JOIN Orders
ON Transaction_Record.Order_ID=Orders.Order_ID
```

4. Products Name and Pricing

| Product_ID | Name | Price |
|---|---|---|
| 1 | Running_Shoes | 49.99 |
| 2 | Boots | 79.99 |
| 3 | Sandals | 29.99 |

Code:

```
SELECT * FROM Product
```

5. Products in a cart

| Cart_ID | Product_ID | Quantity | Name | Price |
|---|---|---|---|---|
| 1 | 2 | 1 | Boots | 79.99 |
| 2 | 3 | 1 | Sandals | 29.99 |
| 3 | 1 | 2 | Running_Shoes | 49.99 |

Code:

```
SELECT Cart.Cart_ID, Cart.Product_ID, Cart.Quantity, Product.Name, Product.Price
FROM Cart
LEFT JOIN Product
ON Cart.Product_ID=Product.Product_ID
```

**Link to Final Project:** Bncl233ICT301 Final (No Longer Works due to UKY Cloud System)