The Temple (Group 3)

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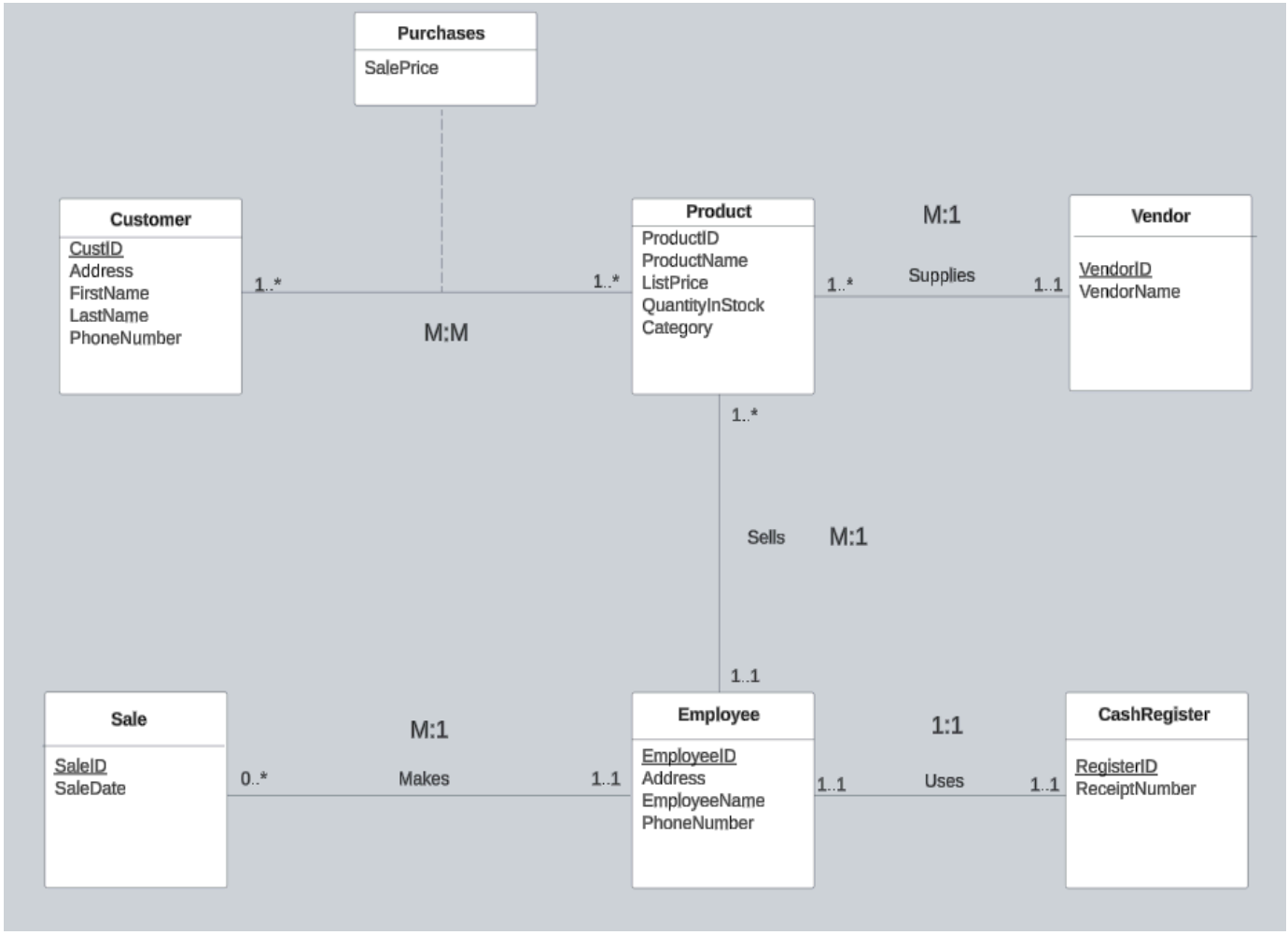
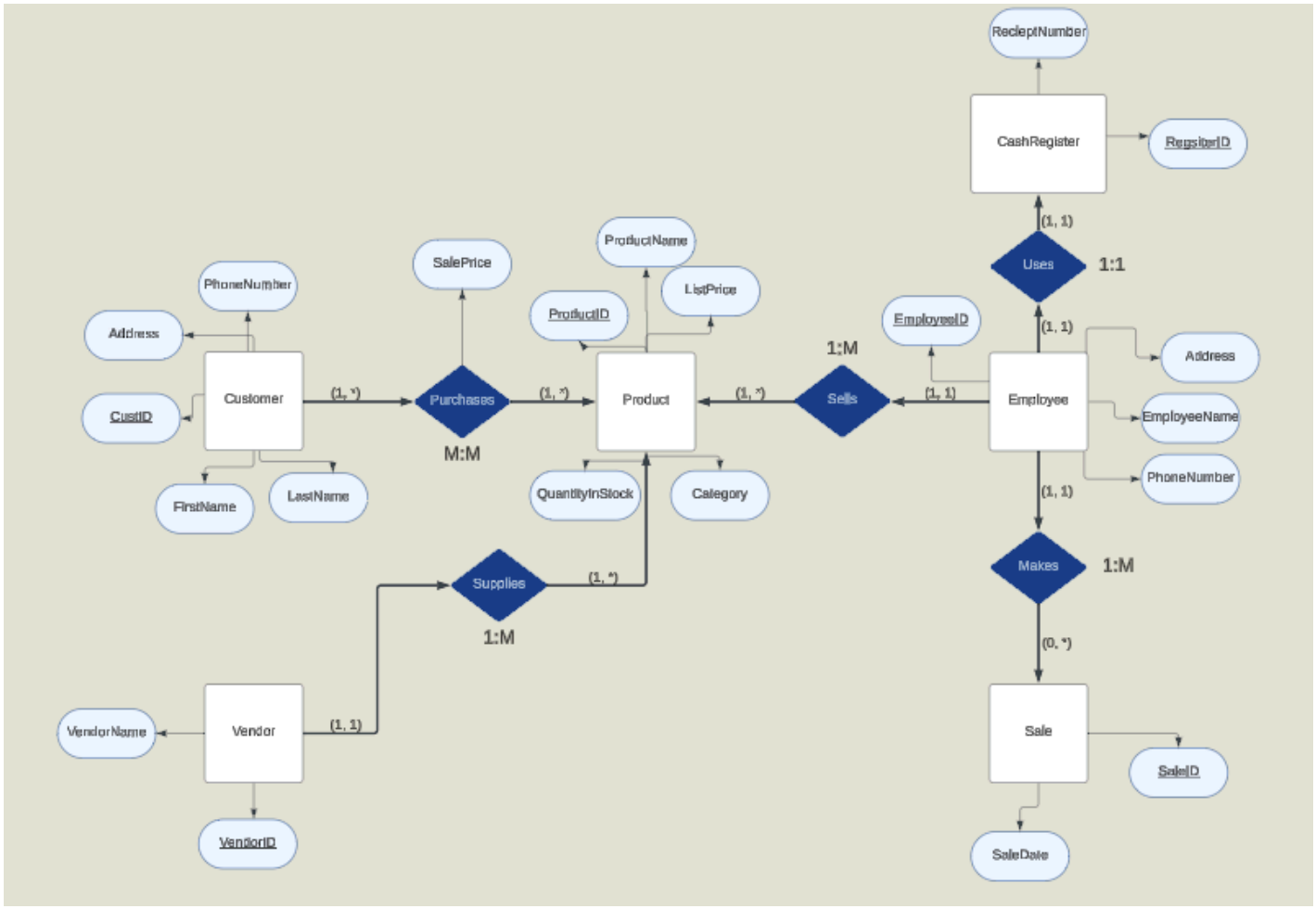
UML:



ERD:


RecieptNumber
CashRegister
RegisterID
(1, 1)
Uses
1:1
(1, 1)
Address
EmployeeName
PhoneNumber
(1, 1)
Makes
1:M
(0, *)
Sale
SaleID
SaleDate
EmployeeID
Employee
1:M
Sells
(1, *)
Product
ProductName
ListPrice
ProductID
QuantityInStock
Category
SalePrice
(1, *)
Purchases
M:M
(1, *)
Customer
PhoneNumber
Address
CustID
FirstName
LastName
(1, *)
Supplies
1:M
(1, 1)
Vendor
VendorName
VendorID

Relational Schema:

- Vendor(VendorID, VendorName)
- CashRegister(RegisterID, ReceiptNumber)
- Customer(CustID, FirstName, LastName, PhoneNumber, Address)
- Employee(EmployeeID, EmployeeName, Address, PhoneNumber, RegisterID)
    - FK: RegisterID references CashRegister
- Sale(SaleID, SaleDate, EmployeeID)
    - FK: EmployeeID references Employee
- Product(ProductID, ListPrice, QuantityInStock, Category, VendorID, EmployeeID)
    - FK: VendorID references Vendor
    - FK: EmployeeID references Employee
- Purchases(ProductID, CustID, SalePrice)
    - FK: ProductID references Product
    - FK: CustID references Customer

Our Code:

```
DROP TABLE IF EXISTS Customer;
DROP TABLE IF EXISTS Product;
DROP TABLE IF EXISTS Vendor;
DROP TABLE IF EXISTS Sale;
DROP TABLE IF EXISTS CashRegister;
DROP TABLE IF EXISTS Employee;
DROP TABLE IF EXISTS Purchases;

CREATE TABLE Customer (
   CustID INT NOT NULL,
   FirstName CHAR(30) NOT NULL,
   LastName CHAR(30) NOT NULL,
   Address VARCHAR(50) NOT NULL,
   PhoneNumber CHAR(15) NOT NULL,
   PRIMARY KEY(CustID));

INSERT INTO Customer VALUES
(150, 'Sean', 'Smith', '672 Maine ave', '602-512-9372'),
(130, 'Mark', 'James', '777 Lucky Dr', '216-511-8382'),
(120, 'Bob', 'Pacc', '123 6th Ave', '561-523-3344'),
(110, 'King', 'Trevon', '209 Ocean Blvd', '901-738-9209'),
(140, 'Darius', 'Garland', '622 Burden st', '701-029-1102'),
(380, 'Shatha', 'Jawad', '5500 Campanile Dr', '707-444-9890');

SELECT * FROM Customer;

CREATE TABLE CashRegister (
   RegisterID INT NOT NULL,
   ReceiptNumber CHAR(30) NOT NULL,
   PRIMARY KEY(RegisterID));

INSERT INTO CashRegister VALUES
(101, '0001'),
(102, '0002'),
(103, '0003'),
(104, '0004'),
(105, '0005');

SELECT * FROM CashRegister;

CREATE TABLE Vendor (
   VendorID INT NOT NULL,
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```
    VendorName CHAR(30) NOT NULL,
    PRIMARY KEY(VendorID));

INSERT INTO Vendor VALUES
(69011, 'Wine and Spirits BBC'),
(123, 'Premium Booze'),
(99, 'Alcoholic Co.'),
(3, 'Global Wine Distributors'),
(4, 'Craft Spirits Inc.'),
(5, 'Beverage Mart International');

SELECT * FROM Vendor;

CREATE TABLE Employee (
    EmployeeID INT NOT NULL,
    EmployeeName VARCHAR(50) NOT NULL,
    Address CHAR(30) NOT NULL,
    PhoneNumber CHAR(30) NOT NULL,
    RegisterID INT NOT NULL,
    PRIMARY KEY(EmployeeID));

INSERT INTO Employee VALUES
(1, 'Rafee Marcus', '193 El Cajon Blvd', '619-982-0293', 101),
(2, 'Michael Marzook', '627 Pacific Beach st', '602-384-8309', 102),
(3, 'Quan Tran', '740 Trenton St, '619-394-1201', 103),
(4, 'Peter Loomis', '120 Santee Blvd', '901-291-3943', 104),
(5, 'Martin Luther King Jr', '1203 Liberty st', '982-192-1029', 105);

SELECT * FROM Employee;

CREATE TABLE Purchases (
    ProductID INT NOT NULL,
    CustID INT NOT NULL,
    SalePrice DECIMAL(10, 2),
    PRIMARY KEY(ProductID, CustID));

INSERT INTO Purchases VALUES
(120, 150, 120),
(220, 130, 25),
(320, 120, 50),
(420, 110, 35),
(520, 140, 19),
(620, 380, 60);
```

```
SELECT * FROM Purchases;

CREATE TABLE Product (
   ProductID INT NOT NULL,
   ProductName VARCHAR(50) NOT NULL,
   ListPrice INT NOT NULL,
   QuantityInStock INT NOT NULL,
   Category CHAR(50) NOT NULL,
   VendorID INT NOT NULL,
   EmployeeID INT NOT NULL,
   PRIMARY KEY(ProductID));

INSERT INTO Product VALUES
(120, 'Johnny Walker', 80, 17, 'Whisky', 3, 5),
(220, 'Jose Cuervo', 15, 15, 'Tequila', 99, 2),
(320, 'Bacardi', 30, 30, 'Rum', 123, 4),
(420, 'Pacifico', 15, 18, 'Beer', 5, 1),
(520, 'Cohiba', 9, 10, 'Cuban Cigar', 4, 3),
(620, 'Hennessy', 50, 5, 'Cognac', 69011, 2);

SELECT * FROM Product;

CREATE TABLE Sale (
   SaleID INT NOT NULL,
   SaleDate CHAR(30) NOT NULL,
   EmployeeID INT NOT NULL,
   PRIMARY KEY(SaleID));

INSERT INTO Sale VALUES
(01, '2024-04-20', 1),
(02, '2024-05-12', 2),
(03, '2024-11-20', 3),
(04, '2024-12-23', 4),
(05, '2024-02-26', 5);

SELECT * FROM Sale;
```

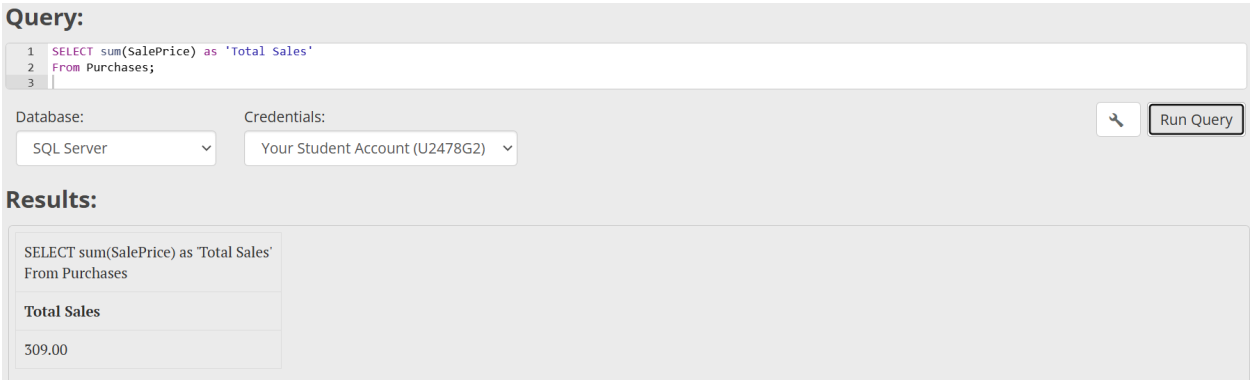
Our Demos:

1 . Select Customer full name and product with CustID 380 (Aggregate):

SELECT C.FirstName+ "+ C.LastName as 'Customer Name', P.ProductName as 'Drank'
FROM Customer C
JOIN Purchases PU ON C.CustID = PU.CustID Join Product P on PU.ProductID = P.ProductID
Where C.CustID = 380;

2. Find total amount of money made today (Scalar)

SELECT sum(SalePrice) as 'Total Sales'
From Purchases;



3. Find the name of the product with ProductID 120.

SELECT ProductName
From Product
Where ProductID = 120;

Query:

```
SELECT ProductName
From Product
Where ProductID = 120;
```

Database: SQL Server | Credentials: Your Student Account (U2478G2) | Run Query

Results:

SELECT ProductName
From Product
Where ProductID = 120

ProductName
Johnny Walker

4. Select customers who spent at least $50 in sales and label them Big Time Spenders

SELECT C.FirstName + C.LastName as 'Big Time Spenders'
FROM Customer C
JOIN Purchases PU ON C.CustID = PU.CustID
Where PU.SalePrice >=50;

Query:

```
SELECT C.FirstName + C.LastName as 'Big Time Spenders'
FROM Customer C
JOIN Purchases PU ON C.CustID = PU.CustID
Where PU.SalePrice >=50;
```

Database: SQL Server | Credentials: Your Student Account (U2478G2) | Run Query

Results:

SELECT ProductName
From Product
Where ProductID = 120

ProductName
Johnny Walker