Super Saver Day!

Supermarket Business Analysis

Data Analysts & Researchers

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Project Overview

Data Description

Supermarket sales

- Sales data from **Jan. to Mar. 2019 in 3 cities in Myanmar**

- Contains key data on **branch, product line, gross income, rating**, and more ..

Business Statement

- Super Saver Day **Promotion**

- Rewarding our **loyal members** and attracting **new ones**

- Encouraging **more spending**

- Increasing **customer satisfaction**

*Reference: Supermarket sales (kaggle.com)

Key Challenges & Constraints

Methodology

- Trello Kanban

- **Entity-Relationship-Diagram**

- Exploratory Data Analysis

Challenges

- Data **import**

- Define the **Primary Key and Foreign Key**

Constraints

- Limited **data frame**

- Leverage SQL queries for in-depth analysis of complex data relationships, like **customer behavior**

SQL

Design ER

Create Database

Import Data

Use SQL Queries

- SELECT AS
- JOIN ON
- WHERE
- GROUP BY
- RANK OVER

Database Design

Branch

Branch ID	linestring
City	linestring
Rating	linestring

Customer

Customer ID	int
Customer Type	linestring
Gender	linestring

Product

Product line	linestring
Unit price	float

Invoice

Invoice ID	linestring
Date	date
Time	time
Payment	linestring
Quantity	int
Total	float
Tax	float
Customer ID	bigint

Revenue

Invoice ID	linestring
Gross income	float
Gross margin ...	float
Cogs	float

drawSQL

Entity - Relationship

- Branch to Customer: 1 to Many
- Customer to Invoice: 1 to Many
- Product to Invoice: Many to 1
- Invoice to Revenue: 1 to 1

Keys:

- **Primary Key:** Customer ID; Branch ID; Invoice ID; Product line
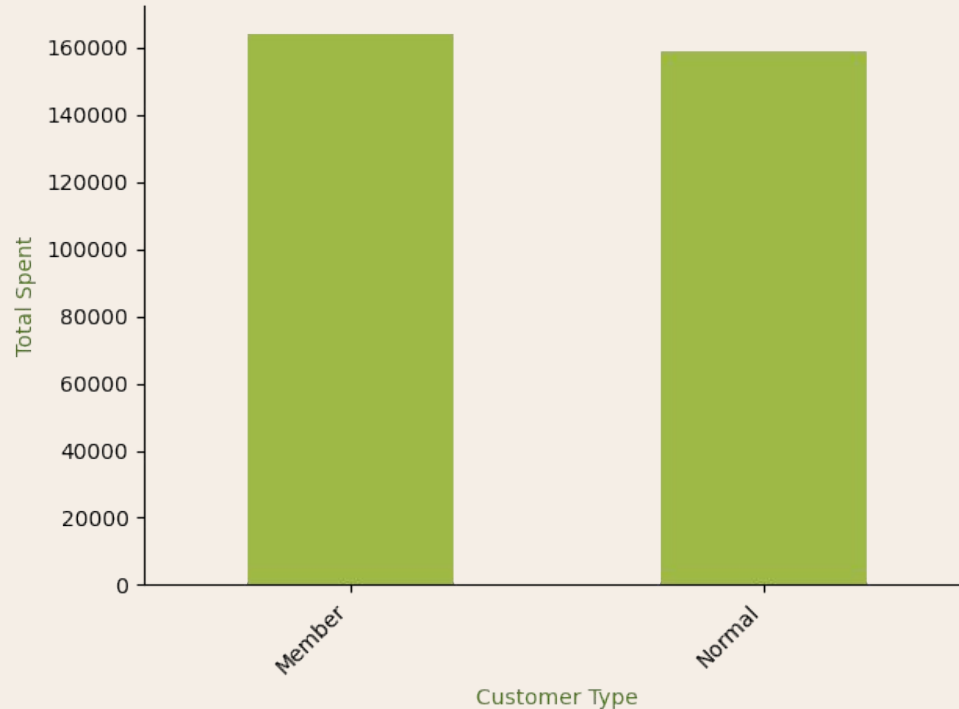- **Foreign Key:** Customer ID as FK in Invoice/Invoice ID as FK in Revenue
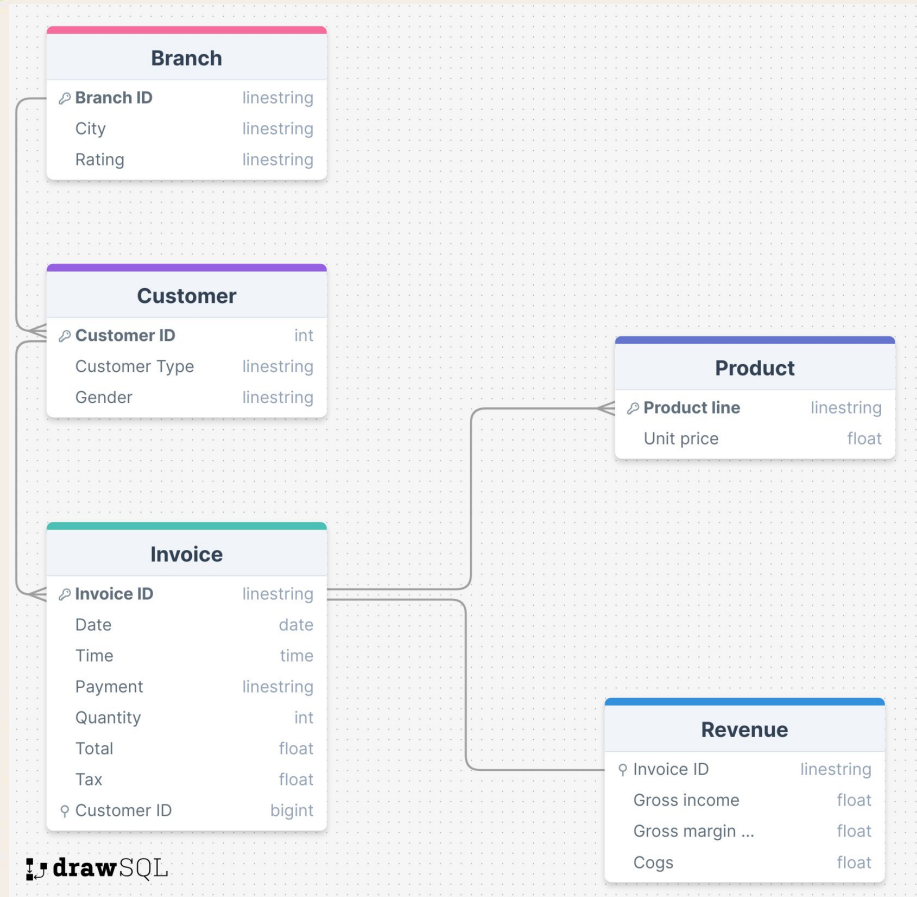
Business Insights Customer Analysis
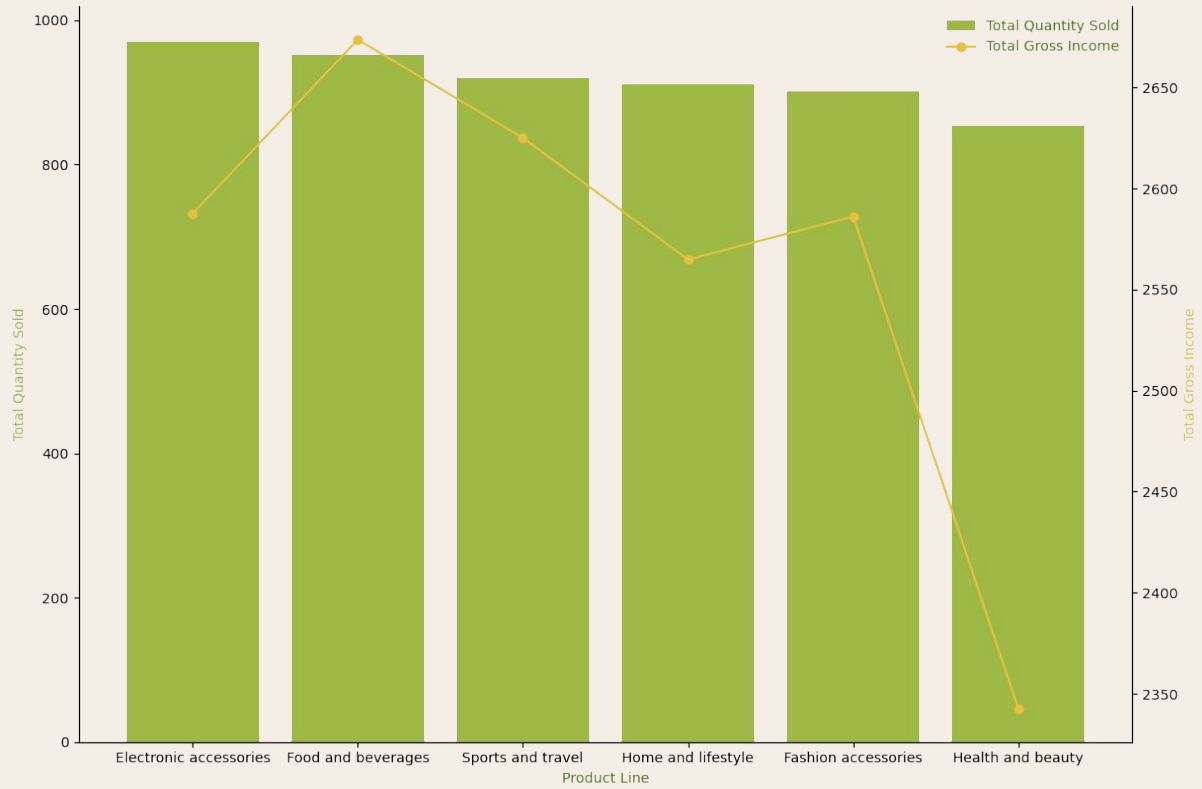
Total spent of Member / Normal Customers

Summarize

- There is no difference in the amount of money spent by members and normal customers.

- Best-selling product line: Electronic accessories.

- Most profitable product line: Food and beverage.

- Importance of having a database to keep tracking customer behavior.

Super Saver Day Promotion

Promote the most profitable product line to leverage sales and profit.

Offer promotions exclusively to members to increase the number of memberships.

Thank you!