



Steal the Deal Day!

Supermarket Business Analysis

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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 \(kaggle.com\)](https://www.kaggle.com/datasets/rajmanglik1002/supermarket-sales)



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

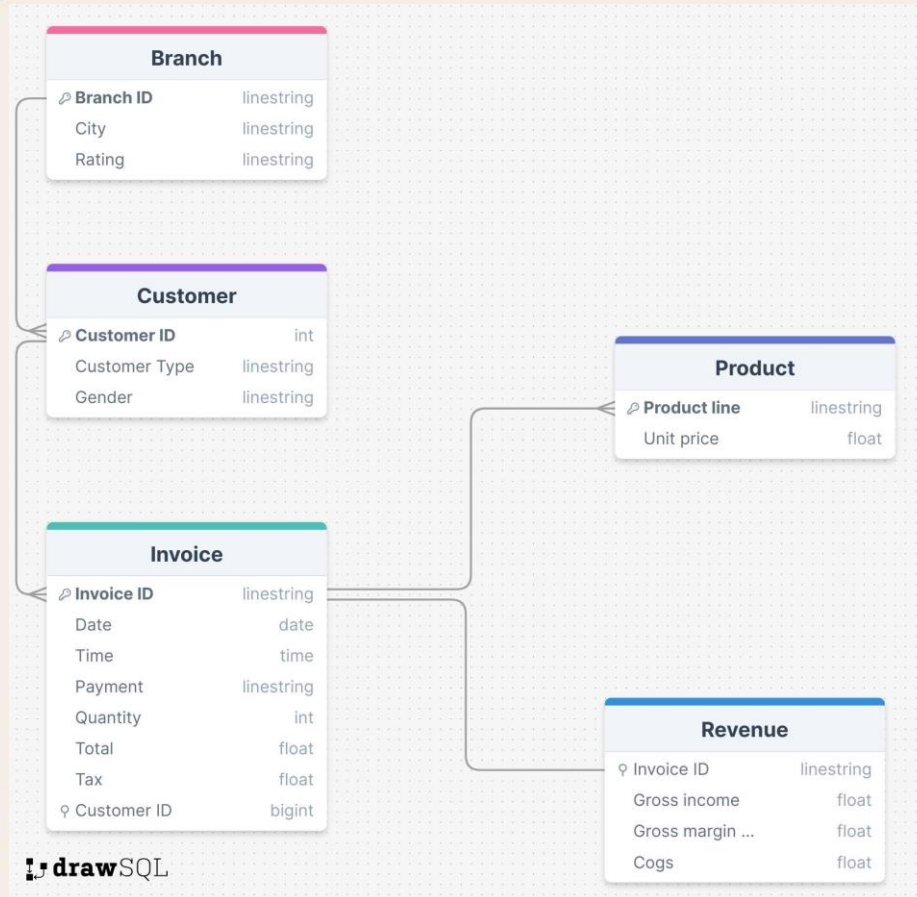
Entity-Relational-Model

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



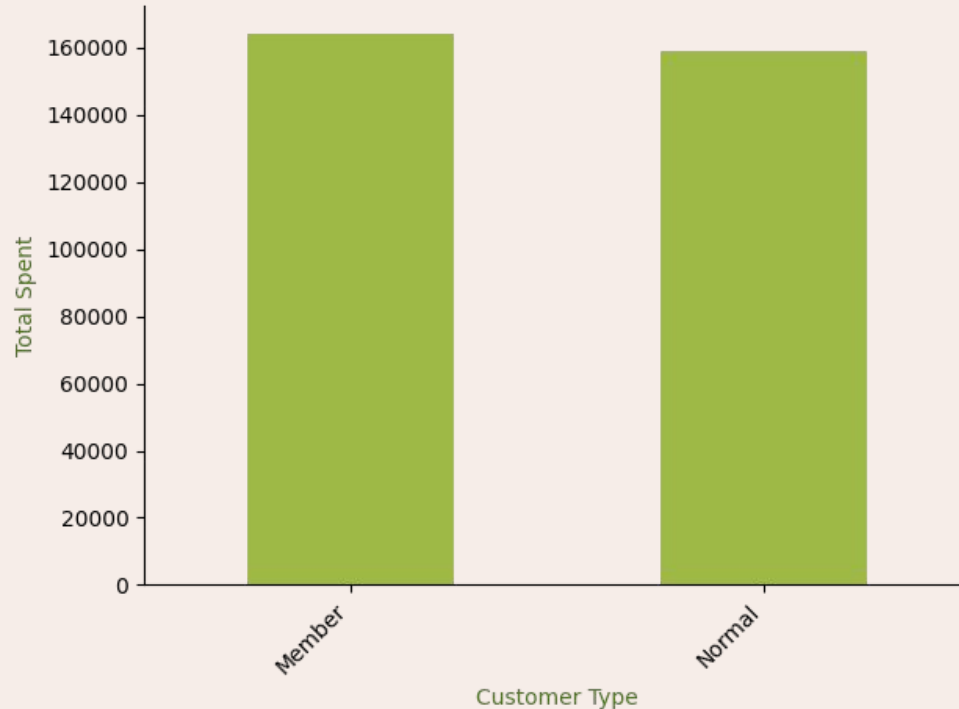


Business Insights

Customer Analysis



Total spent of Member / Normal Customers

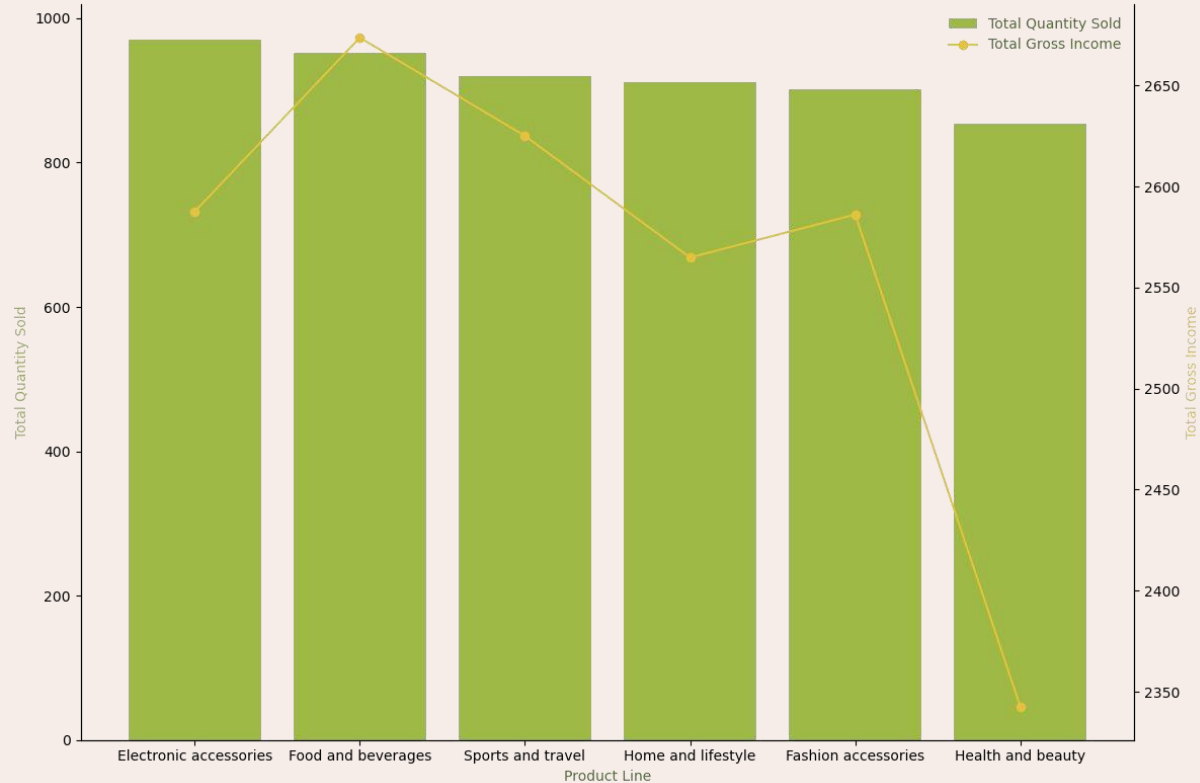




Business Insights Product Analysis



Total Quantity Sold & Total Gross (\$) Income of Product lines





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.

Deal 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!

