

Supermarket Sales Analysis – Report

Dataset: Supermarket Sales (Myanmar transactions). This report summarizes cleaning, exploratory analysis, visualizations, and answers to the required advanced questions.

Rows: 1000 | Columns: 19

Data Cleaning: No missing values found. Converted Date to datetime and Time to time; added Month and DayName columns for time-based analysis.

Key Finding 1: Highest revenue branch is **Giza** with total Sales = 110,568.71.

Branch comparison (transactions, average sales, and gross income) suggests differences are driven by a mix of transaction volume and average basket size.

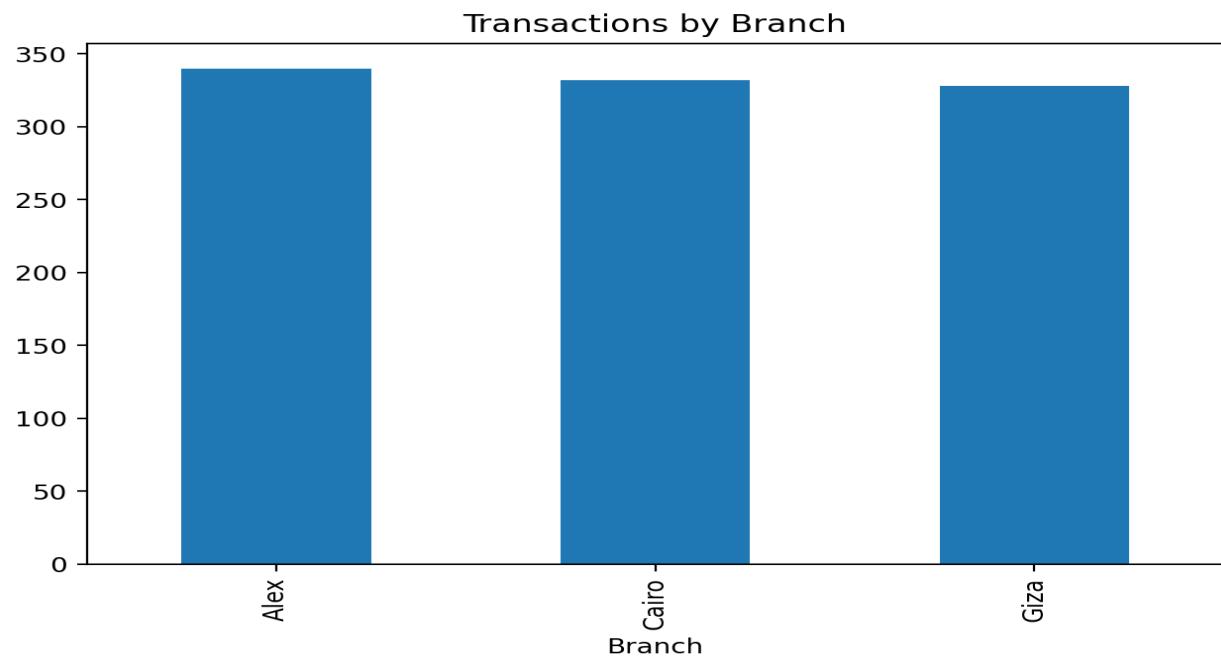
Key Finding 2: Customer type spending: **Member** customers have a higher average sale value (Member avg = 335.74, Normal avg = 306.37).

Key Finding 3: Most used payment method is **Ewallet** (count = 345).

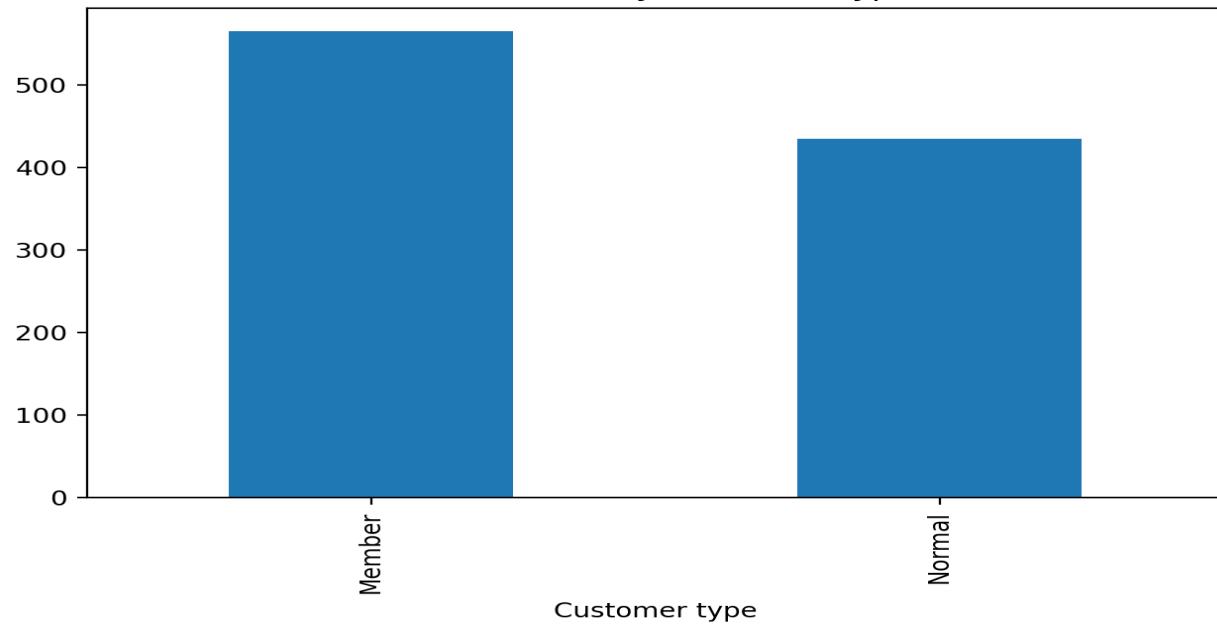
Key Finding 4: Highest average rating product line is **Food and beverages** (avg rating = 7.11).

Key Finding 5: Unit price vs quantity correlation is 0.011 (very weak), suggesting little to no linear relationship between price and quantity purchased.

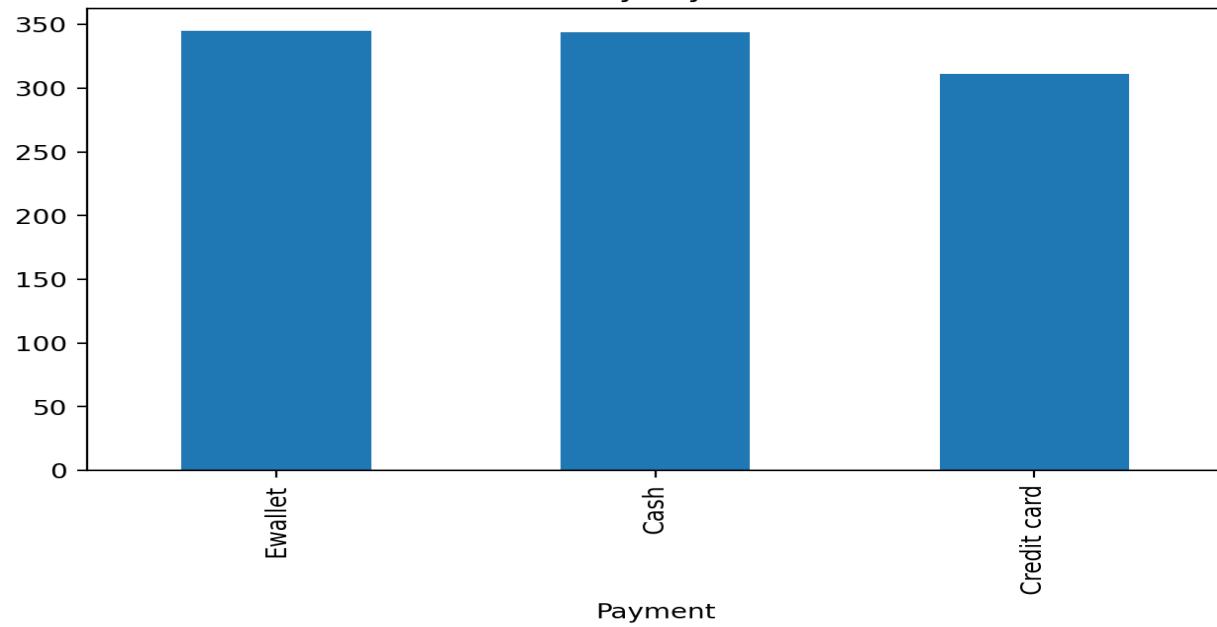
Visualizations



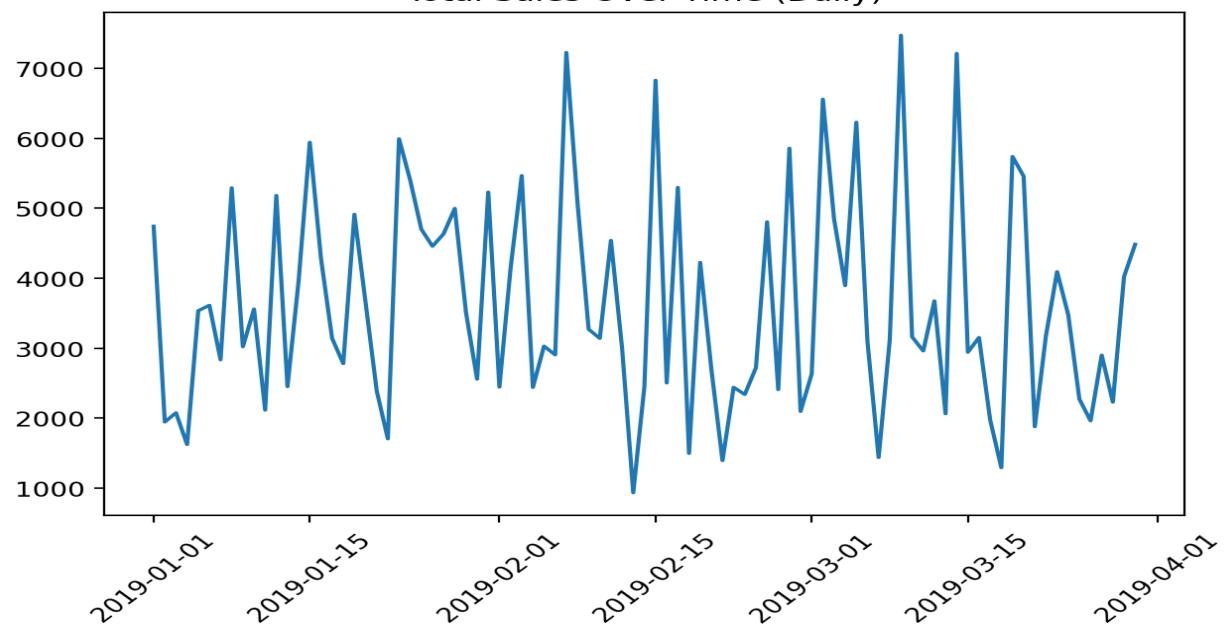
Transactions by Customer Type



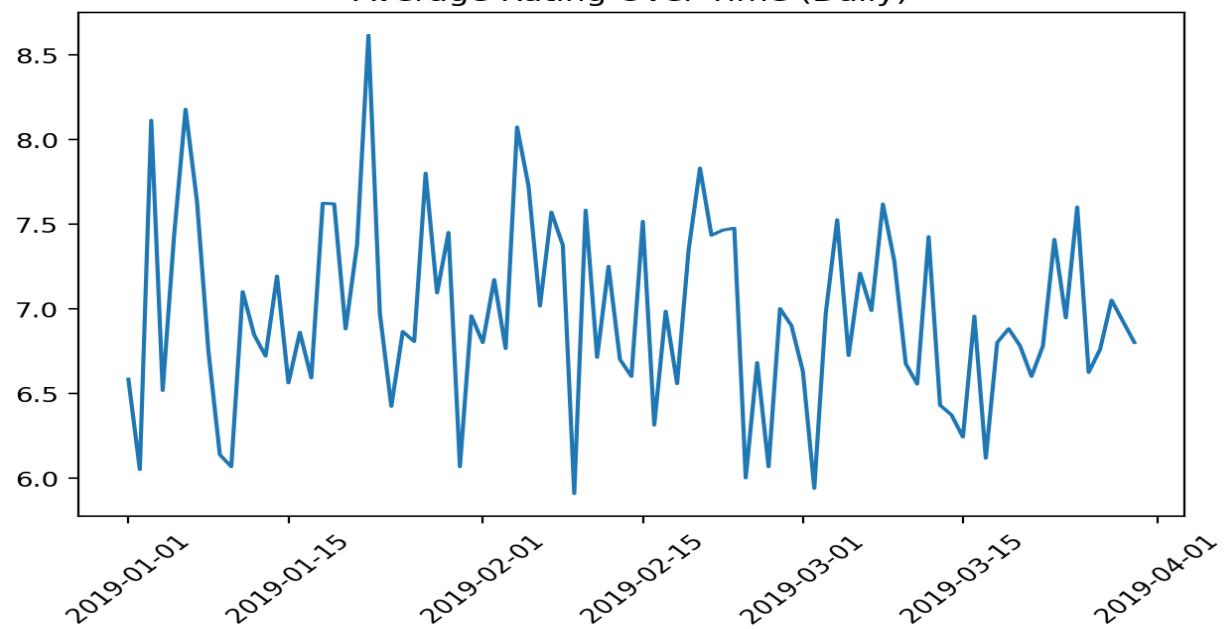
Transactions by Payment Method

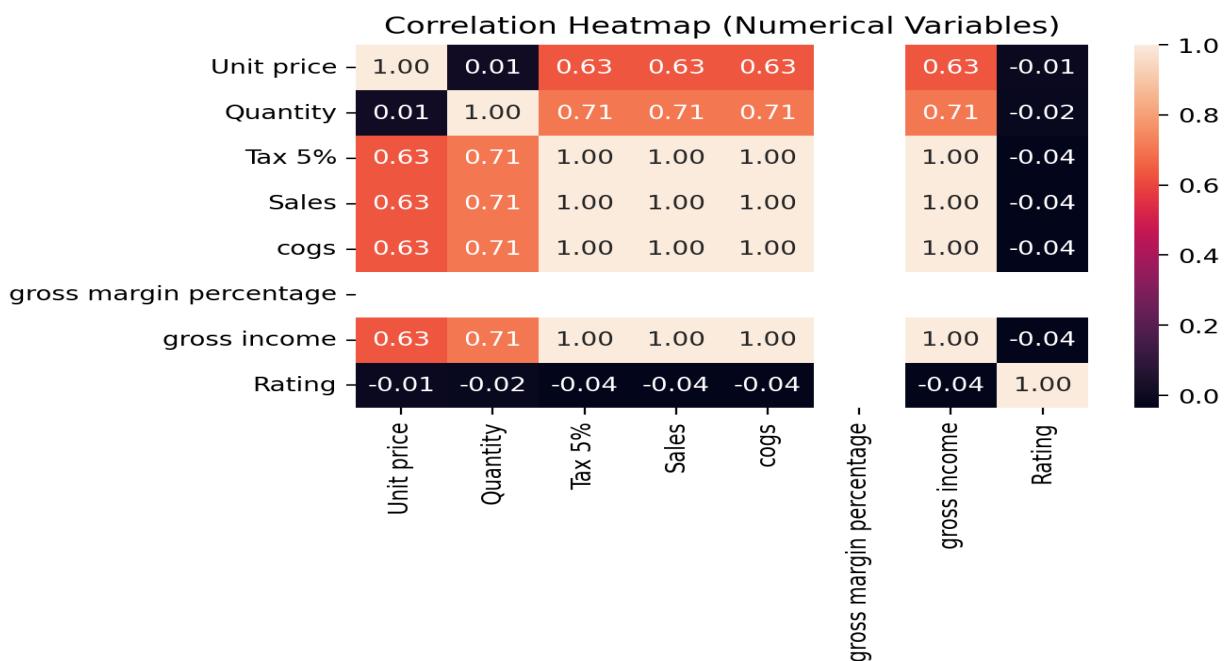
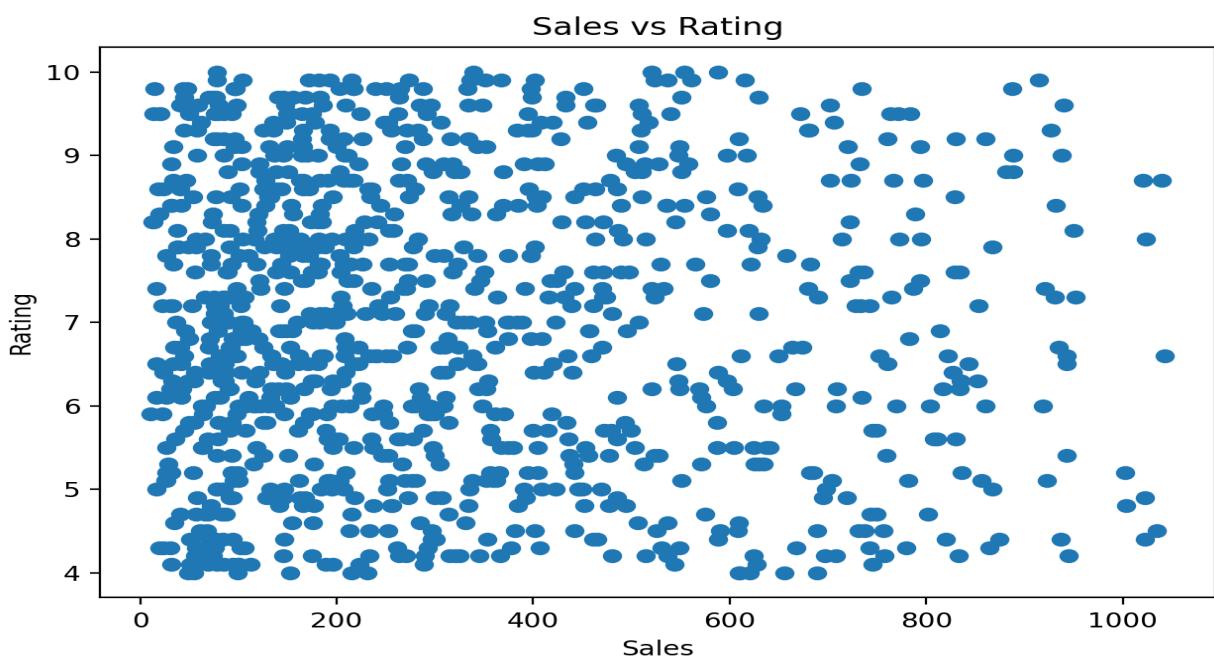


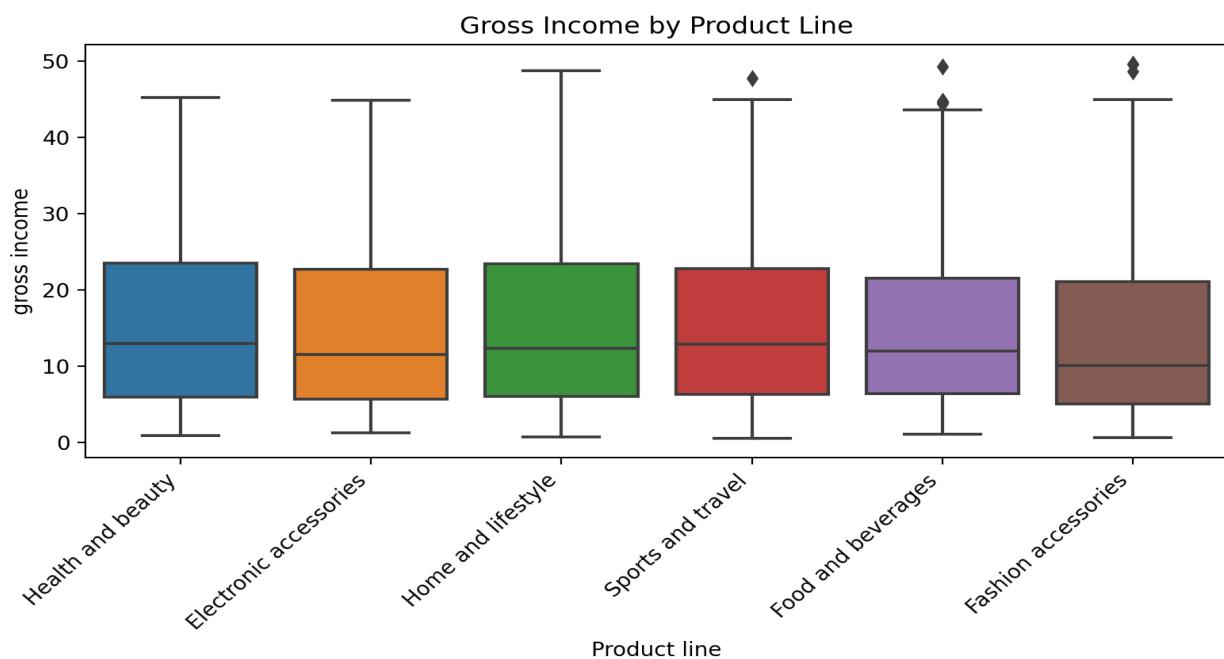
Total Sales Over Time (Daily)



Average Rating Over Time (Daily)







Advanced Questions – Direct Answers

Q1) Highest revenue branch: **Giza** (Sales = 110,568.71). Possible reasons: higher average sale size and/or slightly different transaction volume compared with other branches.

Q2) Members vs normal: Members spend more on average (Member avg = 335.74 vs Normal avg = 306.37).

Q3) Payment method with highest usage: **Ewallet** (count = 345).

Q4) Highest average rating product line: **Food and beverages** (avg rating = 7.11).

Q5) Relationship between unit price and quantity: correlation = 0.011 (very weak).