



Supermarket Store Branches' Sales Analysis

A Data Analytics Project Using Python

By

ONORIOSE Baro Monarch.

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CONTEXT

- A supermarket is a type of store that allows customers to choose from a large variety of food, drinks, and household items, which are arranged in different sections. This kind of store has more products and choices than the older grocery stores, but it is smaller and has less variety than a hypermarket or a big-box market. However, in common U.S. usage, people use the term “grocery store” to mean the same thing as supermarket, and they do not use it for other kinds of stores that sell groceries.



Content

- KPIs
- A SURVEY OF THE TOP 10 AND BOTTOM 10 STORES BY STORE SALES
- SURVEY OF THE TOP AND BOTTOM STORE BY DAILY CUSTOMER COUNT
- A SURVEY OF THE STORES WITH THE LARGEST AND SMALLEST AREA BY THE STORE SALES
- A SURVEY OF THE ITEMS AVAILABLE FOR EACH STORE BY THE CUSTOMER COUNT

Key Performance Indicators



The store area ranges from 775 to 2229 square feet, with an average of 1485.



The daily customer count ranges from 10 to 1560, with an average of 786.

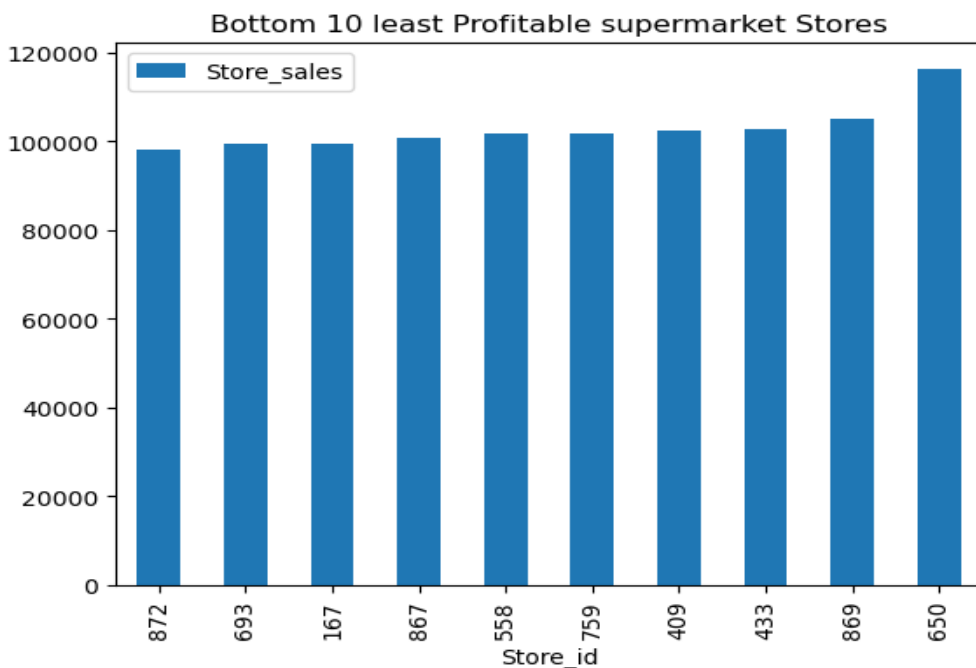
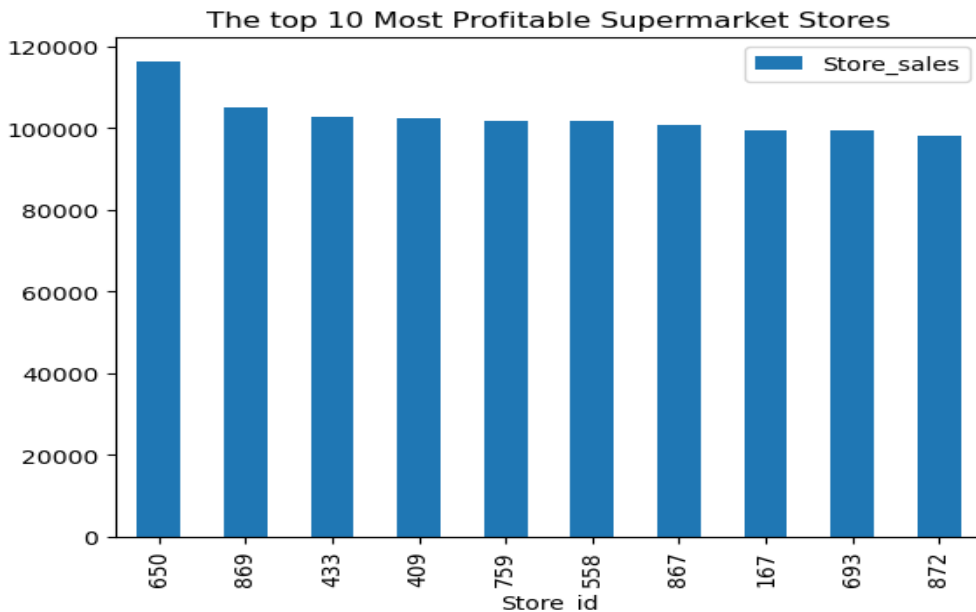


The store sales ranges from \$14,920 to \$116,320, with an average of \$59,351.

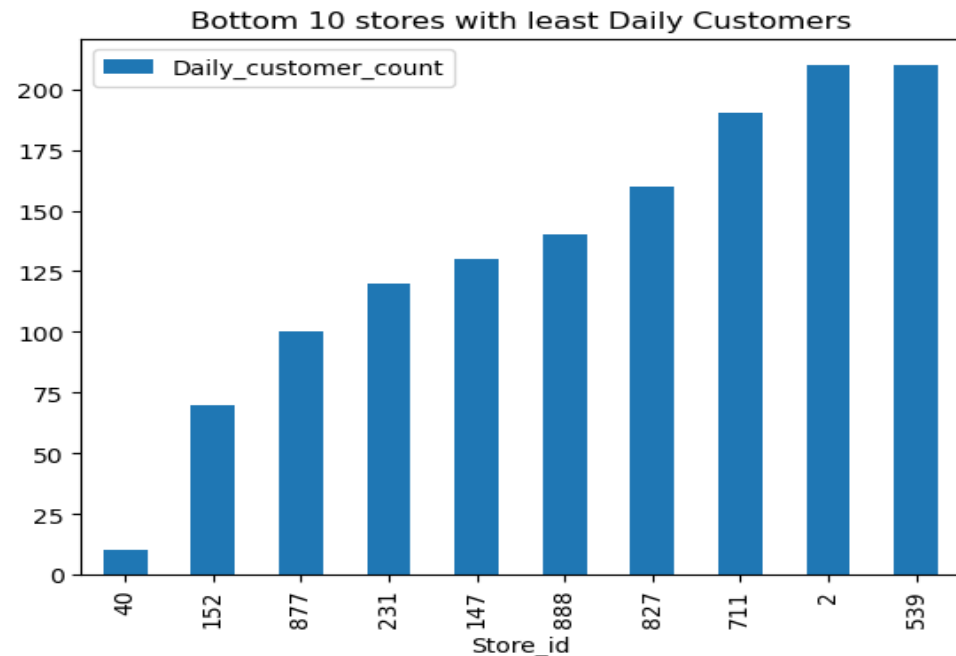
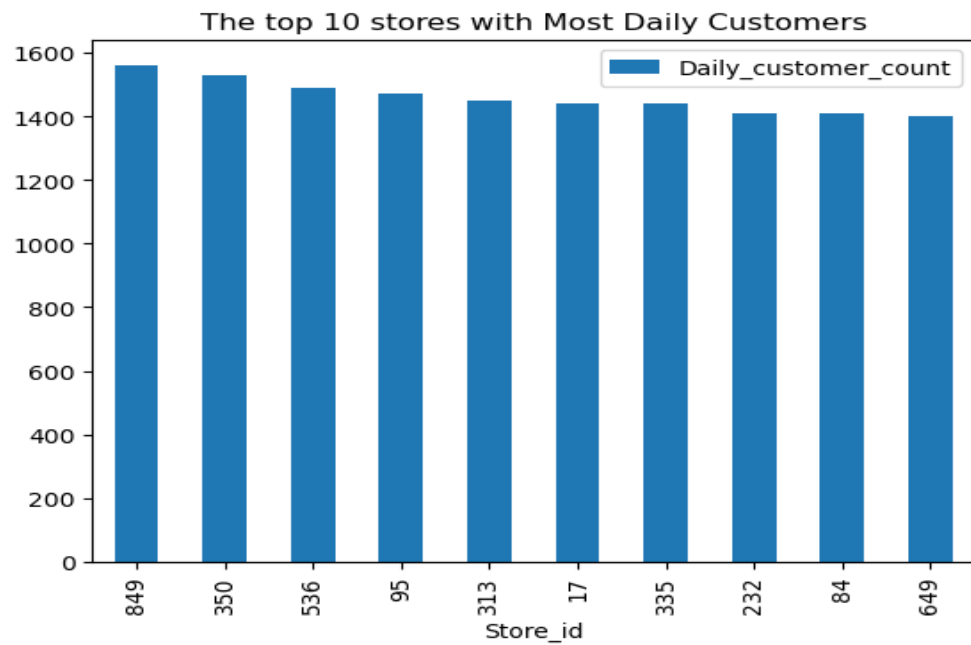


The number of items available ranges from 932 to 2667, with an average of 1782.

A Study of The Most and Least Profitable Supermarket Stores



- The store with the highest sales is store 650, which made \$116,320 in sales.
 - -The store with the lowest sales among the top 10 is store 872, which made \$98,260 in sales.
 - The average sales of the top 10 stores is \$101,379, which is higher than the overall average sales of \$59,351 for all the stores.
 - The range of sales among the top 10 stores is \$18,060, which is the difference between the highest and lowest sales
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- Store 872 had the lowest sales among the Bottom 10 stores, earning only \$ 98,260.
 - Thes Top stores had an average sales of \$101,379, Which is lower than the overall average sales of \$ 59,351 for all the stores.
 - -The sales range of the Bottom 10 stores was \$18,060, which was the gap between the highest and the lowest



SURVEY OF THE TOP AND BOTTOM STORE BY DAILY CUSTOMER COUNT

- **Top 10**

- - The store with the most customers is store 849, which had 1560 customers in a day.
- - The store with the least customers is store 649, which had 1400 customers in a day.
- - The average customer count of the top 10 stores is 1461, which is higher than the overall average customer count of 786 for all the stores.

- **Bottom 10**

- - The store with the most customers is store 849, which had 1560 customers in a day.
- - The store with the least customers is store 649, which had 1400 customers in a day.
- - The average customer count of the 10 stores is 1461, which is higher than the overall average customer count of 786 for all the stores.
- - The range of customer count among the 10 stores is 160, which is the difference between the highest and lowest customer count⁵[5].

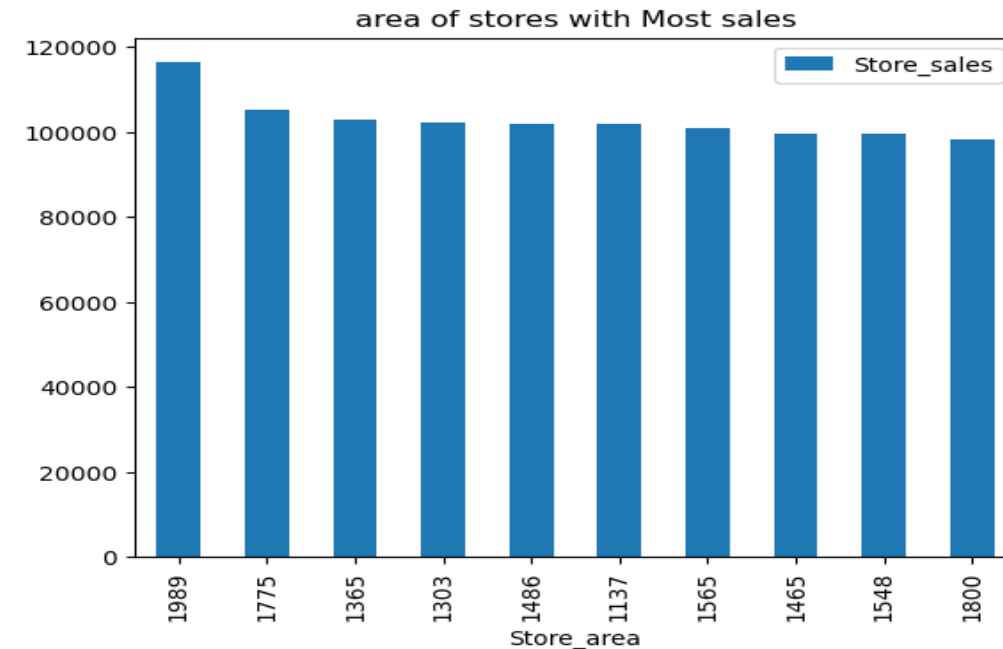
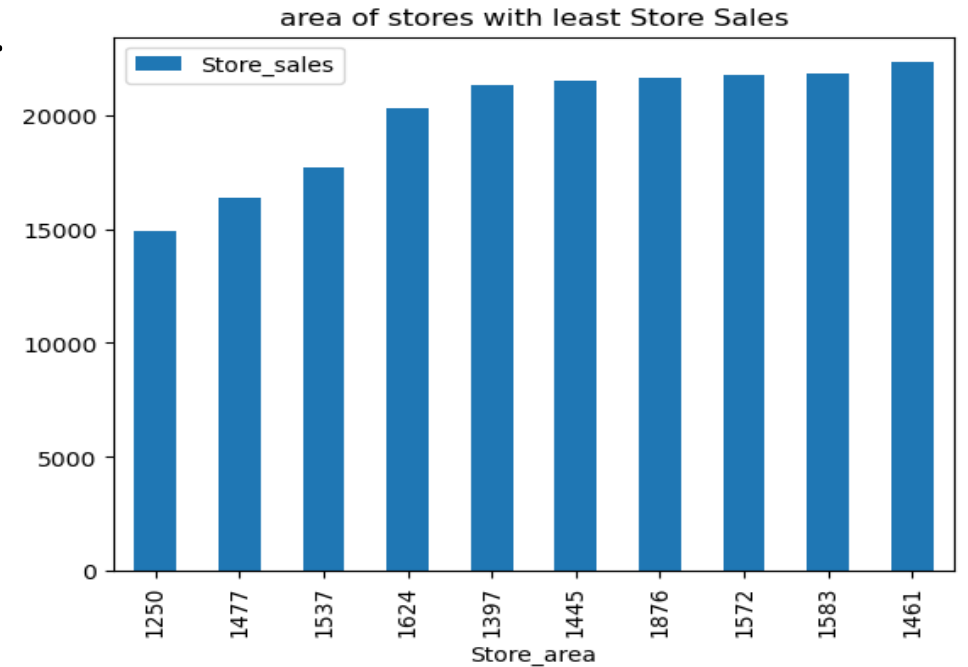
A SURVEY OF THE STORES WITH THE LARGEST AND SMALLEST AREA BY THE STORE SALES

Top 10

- The store with the highest sales is store 650, which made **116,320** in sales.
- The store with the lowest sales among the top 10 is store 872, which made **98,260** in sales.
- The average sales of the top 10 stores is **101,379**, which is higher than the overall average sales of **59,351** for all the stores.
- The range of sales among the top 10 stores is **18,060**, which is the difference between the highest and lowest sales

Bottom 10

- The store with the lowest sales is store 31, which made **14,920** in sales. This store has the smallest area of **1250** square meters.
- The store with the highest sales is store 670, which made **22,310** in sales. This store has a moderate area of **1461** square meters.
- The average sales of the 10 stores is **18,980**, which is lower than the overall average sales of **59,351** for all the stores.
- The average area of the 10 stores is **1522.2**, which is slightly higher than the overall average area of **1485.41** for all the stores.
- There is a weak positive correlation between the store area and the store sales, meaning that the larger the store area, the higher the sales. The correlation coefficient is 0.28, which indicates a low linear relationship.



A SURVEY OF THE ITEMS AVAILABLE FOR EACH STORE BY THE CUSTOMER COUNT

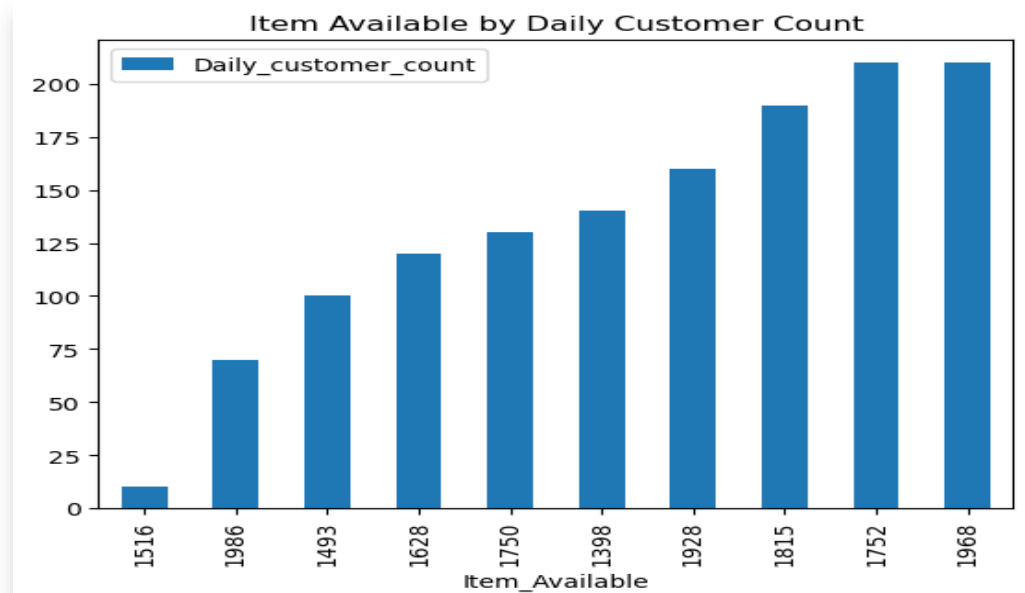
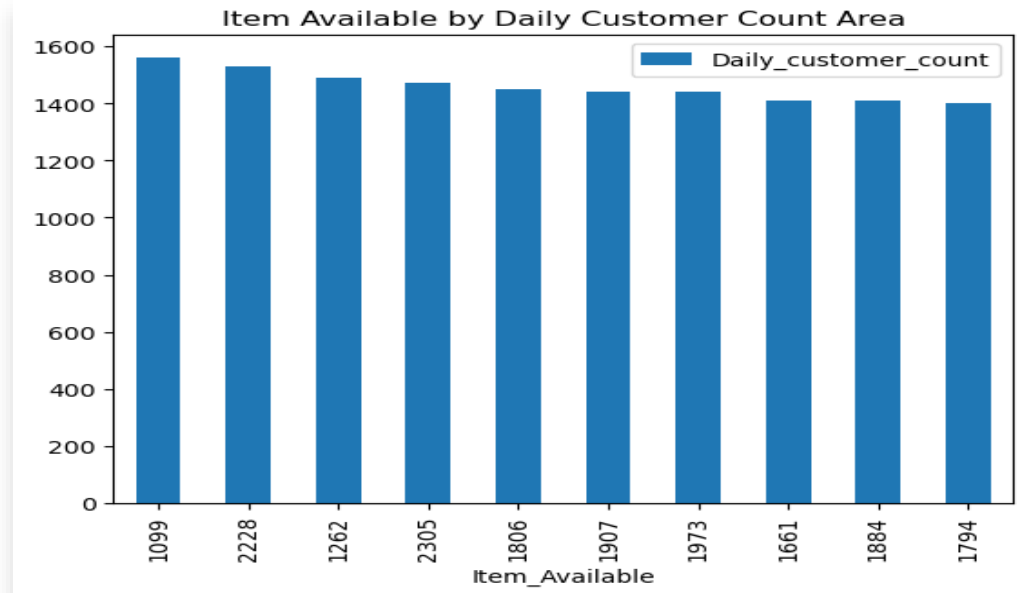
Top 10

- The average customer count of the 10 stores is 1461, which is higher than the overall average customer count of 786 for all the stores.

Bottom 10

The store with the lowest daily customer count is store 1, which has only 10 customers per day. This store has the least number of items available, with only 1752 items in stock.

- There is a positive correlation between the number of items available and the daily customer count, meaning that the more items a store has in stock, the more customers it attracts. The correlation coefficient is 0.82, which indicates a strong linear relationship.





To improve the sales of the stores, you could consider the following strategies:

- 1. Analyze Customer Behavior:** Understand what products are popular among customers and stock more of those items.
- 2. Improve Customer Service:** Train staff to provide excellent customer service. This can increase customer satisfaction and loyalty.
- 3. Run Promotions:** Regular promotions or sales can attract more customers.
- 4. Improve Store Layout:** A well-organized and easy-to-navigate store can enhance the shopping experience and attract more customers.