

COFFEE SHOP SALES ANALYSIS



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COFFEE SHOP SALES



\$6,98,812
Total Sales

149116
Total FootFall

4.69
Avg. Bill/Person

1.44
Avg. Order/Person

Mont...

January

February

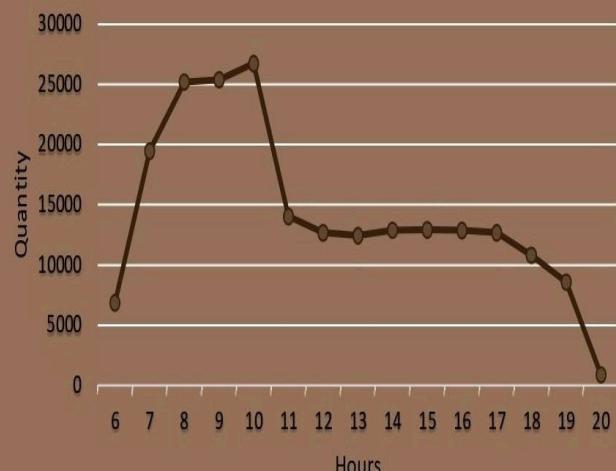
March

April

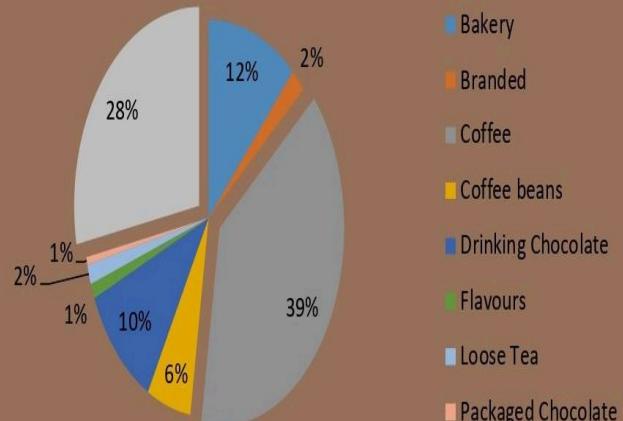
May

June

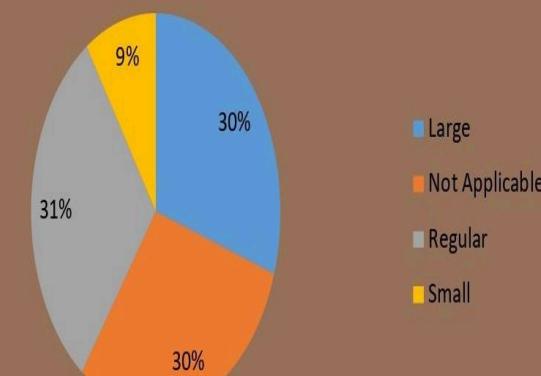
Quantity sold based on hours



Categories % Distribution



% Size Distribution Based On Orders



Day ...

Monday

Tuesday

Wednesday

Thursday

Friday

Saturday

Sunday

Footfall and Sales Over Various Store Locations



Top 5 Best Selling Products



Orders On Weekdays





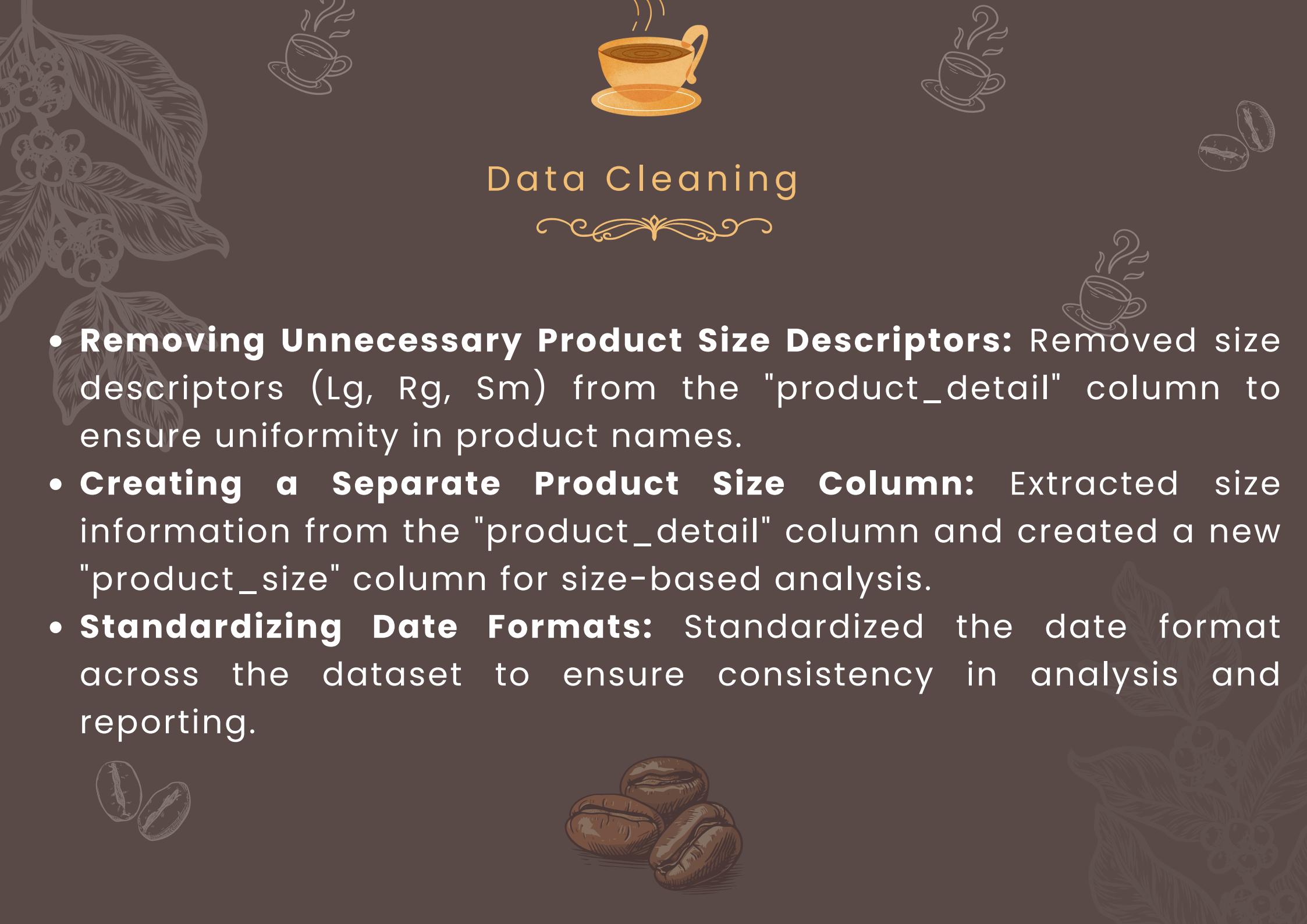
Project Overview



It may surprise you to learn that 64% of adult Americans use coffee daily. Our project, which took advantage of this broad appeal, concentrated on utilizing Excel to analyze sales data for a coffee shop and provide an extensive dashboard. The analysis included key performance indicators (KPIs) such as sales income by day, hour, and location, average order value, and product performance. Excel was selected for rapid and efficient analysis to optimize company choices and sales strategies over Power BI, Tableau, Python, and SQL because of its affordability, team familiarity, and accessibility.

Problem Statement

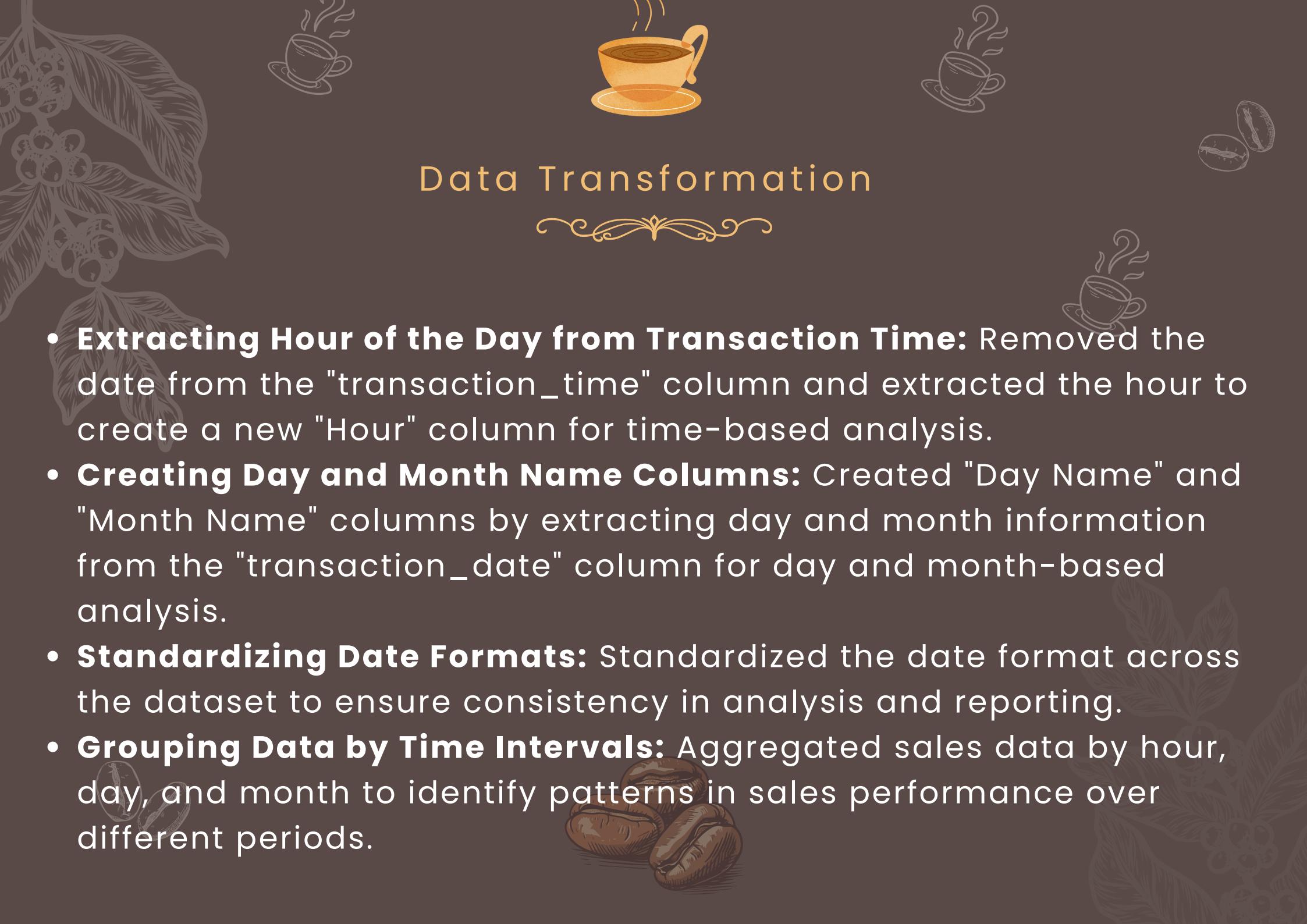
- How do sales vary by day of the week and hour of the day?
- Are there any peak times for sales activity?
- What is the total sales revenue for each month?
- How do sales vary across different store locations?
- what is the average price/order per person Which products are the bestselling in terms of quantity and revenue?
- How do sales vary by product category and type?



Data Cleaning

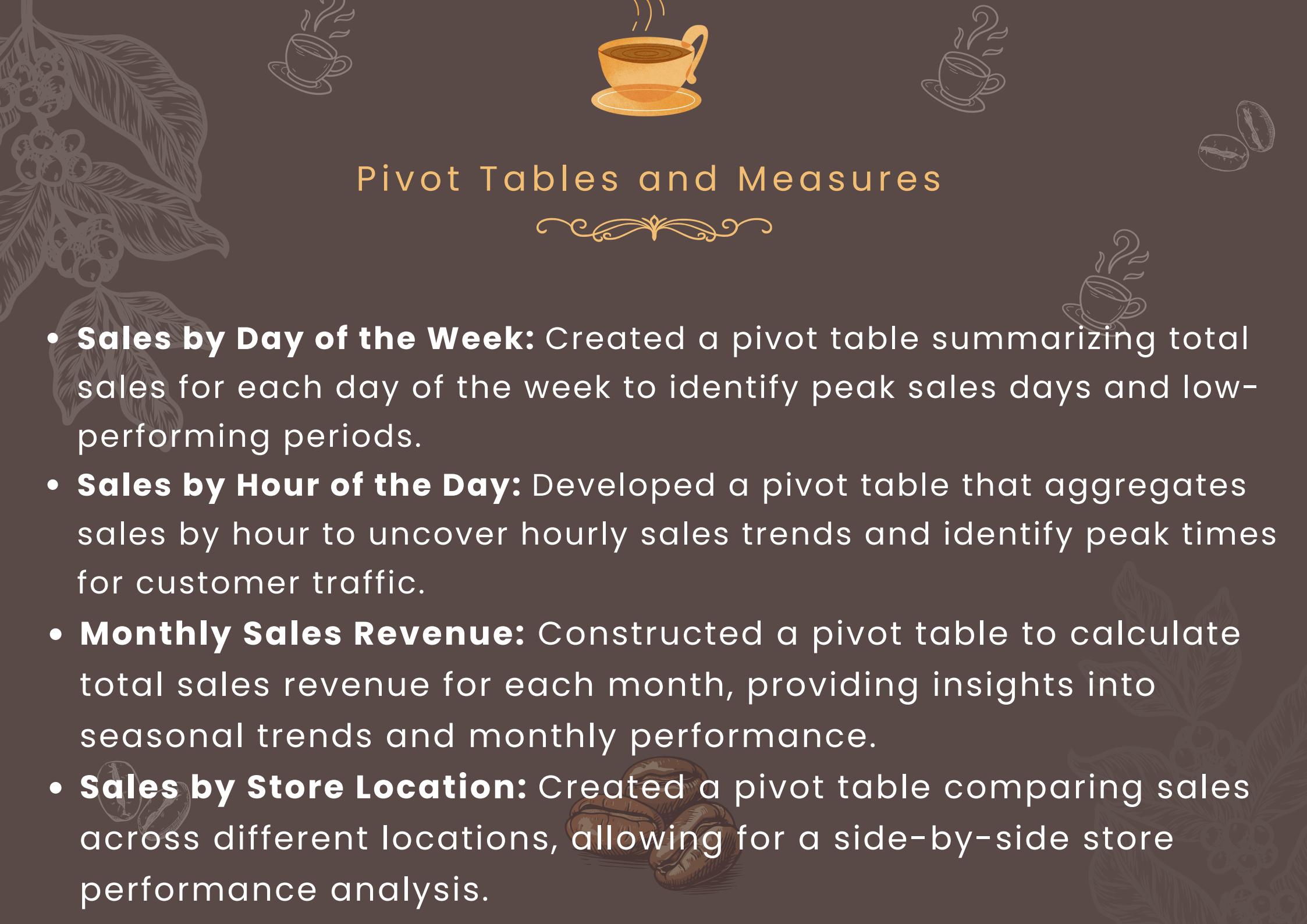


- **Removing Unnecessary Product Size Descriptors:** Removed size descriptors (Lg, Rg, Sm) from the "product_detail" column to ensure uniformity in product names.
- **Creating a Separate Product Size Column:** Extracted size information from the "product_detail" column and created a new "product_size" column for size-based analysis.
- **Standardizing Date Formats:** Standardized the date format across the dataset to ensure consistency in analysis and reporting.



Data Transformation

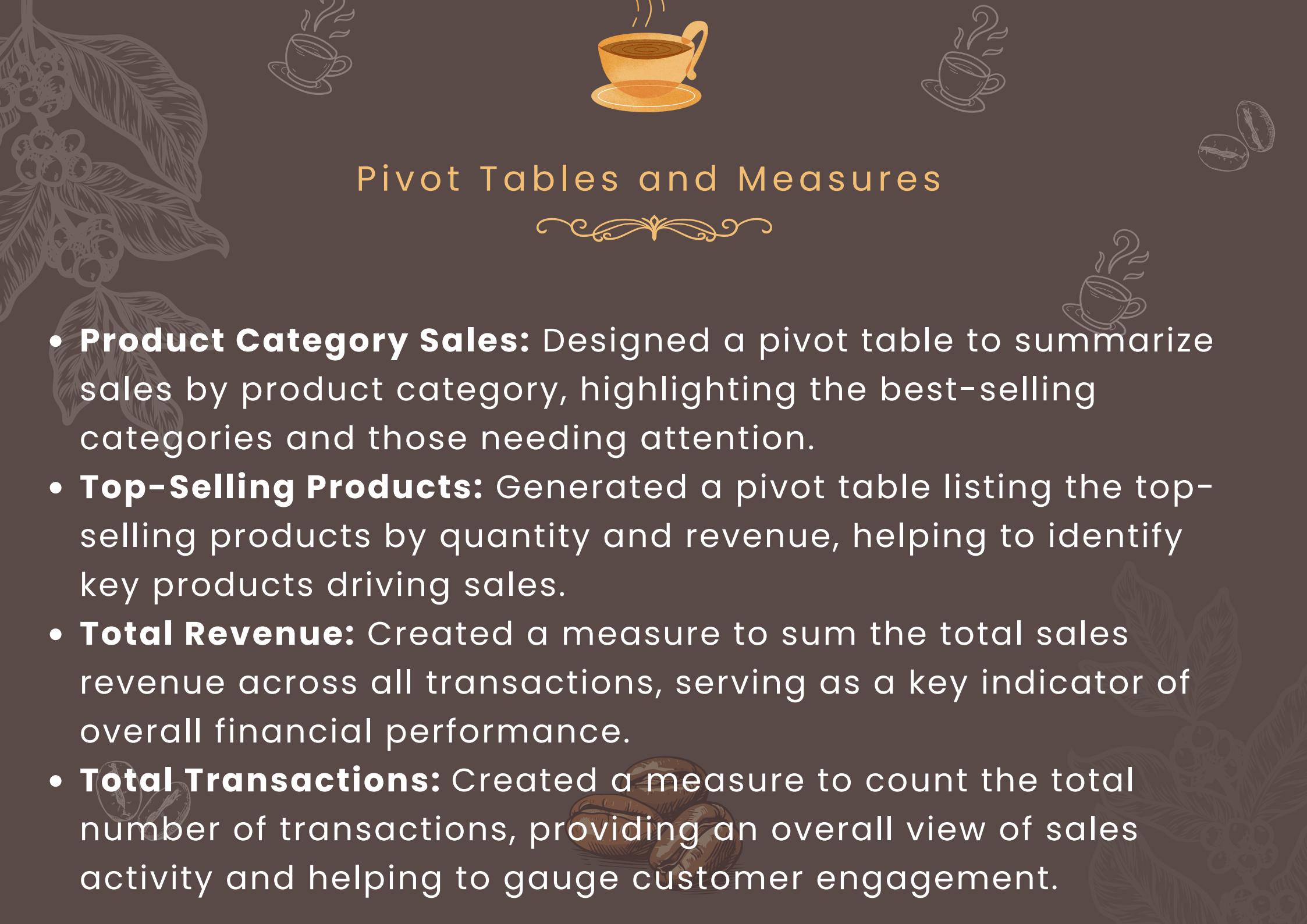
- **Extracting Hour of the Day from Transaction Time:** Removed the date from the "transaction_time" column and extracted the hour to create a new "Hour" column for time-based analysis.
- **Creating Day and Month Name Columns:** Created "Day Name" and "Month Name" columns by extracting day and month information from the "transaction_date" column for day and month-based analysis.
- **Standardizing Date Formats:** Standardized the date format across the dataset to ensure consistency in analysis and reporting.
- **Grouping Data by Time Intervals:** Aggregated sales data by hour, day, and month to identify patterns in sales performance over different periods.



Pivot Tables and Measures



- **Sales by Day of the Week:** Created a pivot table summarizing total sales for each day of the week to identify peak sales days and low-performing periods.
- **Sales by Hour of the Day:** Developed a pivot table that aggregates sales by hour to uncover hourly sales trends and identify peak times for customer traffic.
- **Monthly Sales Revenue:** Constructed a pivot table to calculate total sales revenue for each month, providing insights into seasonal trends and monthly performance.
- **Sales by Store Location:** Created a pivot table comparing sales across different locations, allowing for a side-by-side store performance analysis.



Pivot Tables and Measures

- **Product Category Sales:** Designed a pivot table to summarize sales by product category, highlighting the best-selling categories and those needing attention.
- **Top-Selling Products:** Generated a pivot table listing the top-selling products by quantity and revenue, helping to identify key products driving sales.
- **Total Revenue:** Created a measure to sum the total sales revenue across all transactions, serving as a key indicator of overall financial performance.
- **Total Transactions:** Created a measure to count the total number of transactions, providing an overall view of sales activity and helping to gauge customer engagement.

Pivot Tables and Measures

- **Total Footfall:** Developed a measure to calculate the total number of unique customers, offering insights into customer traffic and store popularity.
- **Average Order per Person:** Developed a measure to calculate the average quantity of products ordered per customer, providing insights into purchasing behavior and product bundling opportunities.

Pivot Tables and Measures

Slicers:

- **Purpose:** To add interactivity to the dashboard by enabling users to filter data on specific dimensions like "Month" and "Day."
- **Usage:** Slicers were used to dynamically filter data in the Pivot Tables and Pivot Charts, making the dashboard adaptable to different analysis needs.

Data Visualisation

The dashboard features a variety of charts designed to offer key insights into the coffee shop's sales performance.

- A **line chart** displays hourly sales trends, revealing peak selling times.
- Two **pie charts** show the distribution of sales by product category and order sizes, highlighting customer preferences.
- **Bar charts** compare footfall and sales across different store locations, illustrate the top five best-selling products, and track order volumes by day of the week.

Conclusions

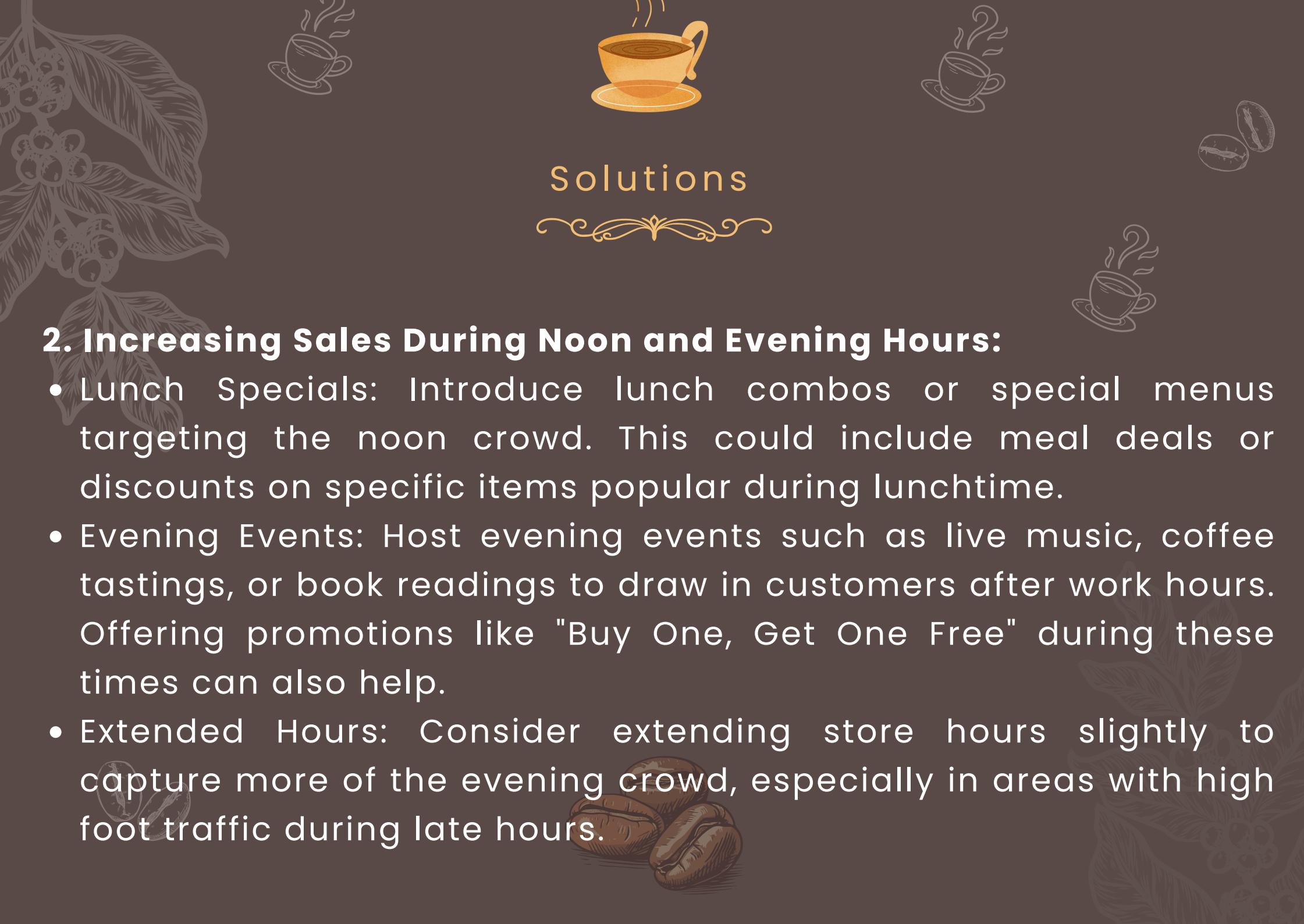


1. The analysis reveals that peak sales occur in the morning, particularly between 7 AM and 11 AM, with coffee being the dominant product category.
2. The Hell's Kitchen and Lower Manhattan locations outperform Astoria in both footfall and sales.
3. Regular and Large sizes are equally popular among customers, and top-selling products like Barista Espresso and Brewed Black Tea drive significant revenue.
4. Sales remain steady across weekdays, suggesting consistent customer traffic.



Solutions

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- 1. Boosting Sales at the Least Performing Store (Astoria):**
 - **Targeted Promotions:** Implement location-specific promotions like "Happy Hour" discounts or bundle offers to attract more customers during off-peak hours.
 - **Local Partnerships:** Collaborate with nearby businesses or community events to increase foot traffic. Offering discounts to customers from neighboring businesses can also help.
 - **Enhanced Marketing:** Increase local advertising efforts, including social media campaigns targeting nearby residents and office workers. Highlight unique offerings or specialties of the Astoria location.



Solutions

2. Increasing Sales During Noon and Evening Hours:

- **Lunch Specials:** Introduce lunch combos or special menus targeting the noon crowd. This could include meal deals or discounts on specific items popular during lunchtime.
- **Evening Events:** Host evening events such as live music, coffee tastings, or book readings to draw in customers after work hours. Offering promotions like "Buy One, Get One Free" during these times can also help.
- **Extended Hours:** Consider extending store hours slightly to capture more of the evening crowd, especially in areas with high foot traffic during late hours.



Solutions



3. Increasing Average Bill Per Transaction:

- Upselling and Cross-Selling: Train staff to suggest complementary products (e.g., pastries with coffee) and highlight premium options or add-ons (e.g., flavored syrups, extra shots).
- Bundling Products: Create value bundles that encourage customers to purchase multiple items together, like a coffee and dessert combo at a discounted price.
- Loyalty Programs: Introduce a loyalty program where customers earn points for larger purchases, redeemable for discounts or free items. This can incentivize customers to spend more per transaction.