



Instacart

- Marketing strategy for an online grocery store

OBJECTIVE: Instacart, an online grocery store operating through a mobile app, is in pursuit of a targeted marketing strategy. Recognizing the diversity in customer profiles and purchasing behaviors within their database, the company aims to customize marketing campaigns for various customer segments to optimize product sales. The objective of the data analysis is to perform an initial exploration and analysis of Instacart's data, with the goal of revealing insights and suggesting strategies for enhanced segmentation based on specific criteria.

Instacart Analysis



Dataset

Open-source datasets from Instacart:

- orders, products and departments datasets
- customers dataset

The full details of the Instacart data are available under [/data/](#).

- [Data Dictionary](#)



Tools

- Jupyter Notebook
- Python Libraries: Pandas, NumPy, SciPy Seaborn, Matplotlib
- Microsoft Excel



Key Skills

- Python – Data Wrangling; Data Consistency Checks; Merging Data; Exploratory Analysis; Deriving New Variables; Grouping Data & Aggregating Variables; Visualizing Data
- Report Findings with Excel – created a final report including population flow, details of consistency checks, data wrangling, column derivation, visualizations, and results and recommendations, available under [/report/](#).

The Process

1

Data Exploration and Analysis:

Utilized Jupyter Notebook & Python Libraries to identify diverse customer profiles and purchasing behaviors from Instacart's database.

2

Strategic Decision-Making:

Aligned data-driven insights for diverse customer profiles and purchasing behaviors with overarching marketing initiatives.

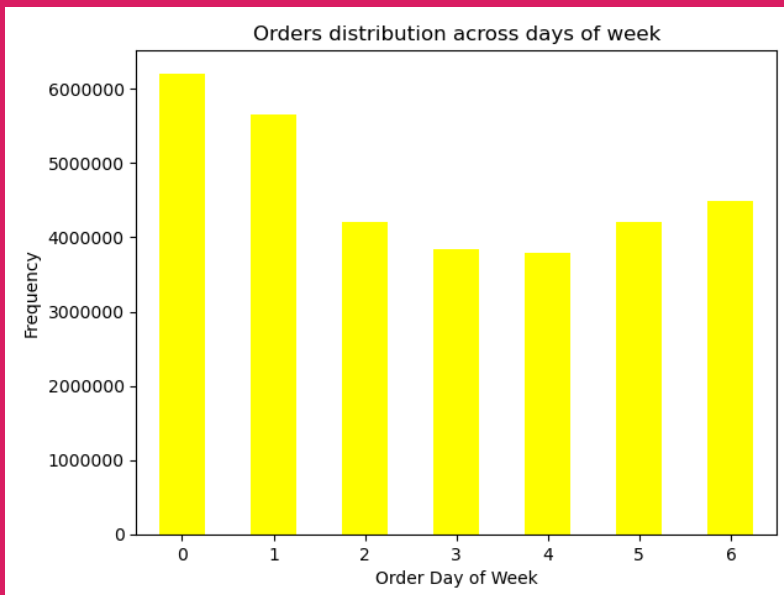
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Marketing Strategy:

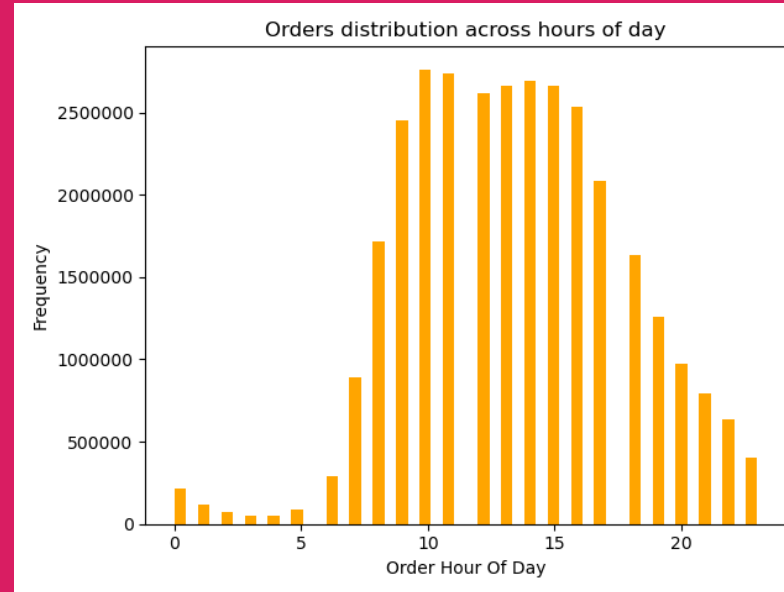
Supported the development of customized marketing campaigns for distinct customer segments.

Instacart Analysis - Sample Visualizations

Key Question: The busiest days of the week and hours of the day ?

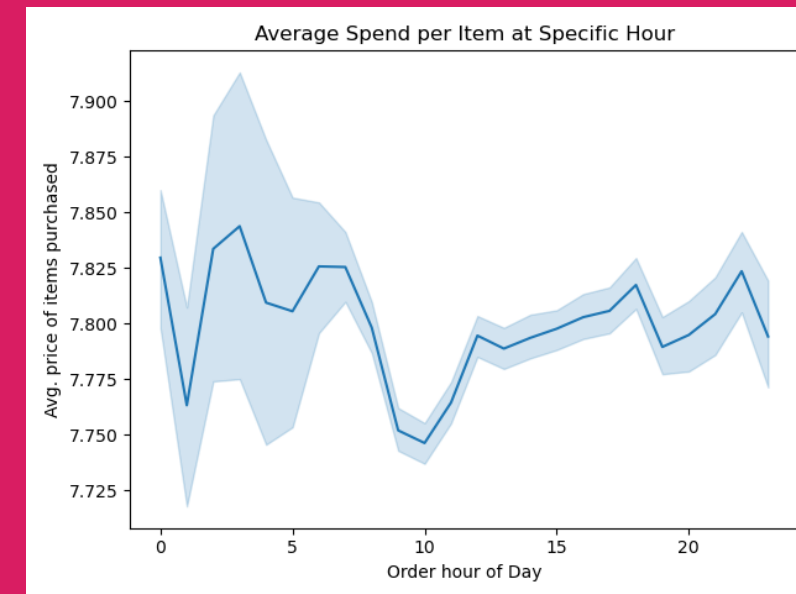


Weekends have the highest amount of order activity, followed by Fridays and Mondays. Wednesdays show the lowest order activity.



10AM is the hour when the most orders come in. The hours of 10AM – 4PM have relatively similar amounts of orders and comprise most of the activity on the app. Orders start to slow down around 5PM and continue to do so until midnight. The hours of 12AM – 7AM make up the lowest amount of activity on the app. Orders then start to pick up again around 8AM.

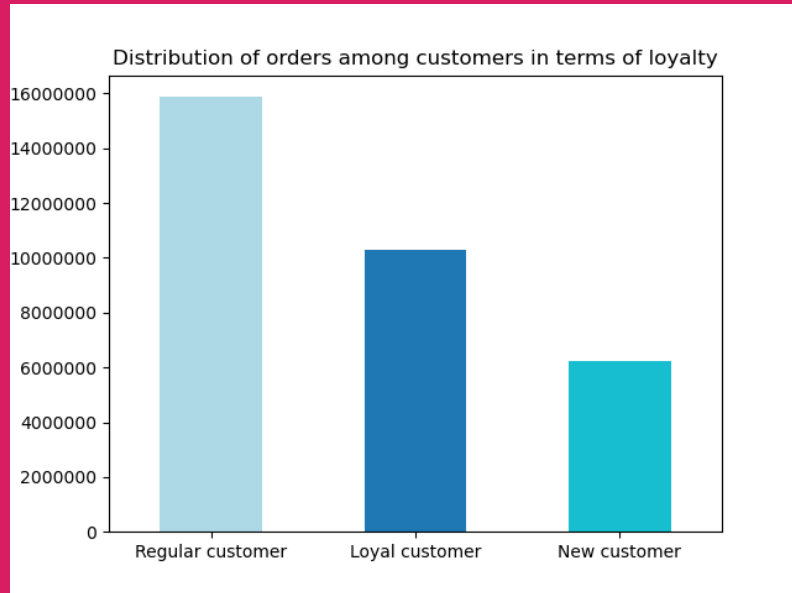
Key Question: Particular times of the day when people spend the most money?



It doesn't appear to be a significant correlation between the price of items bought and the timing of these purchases.

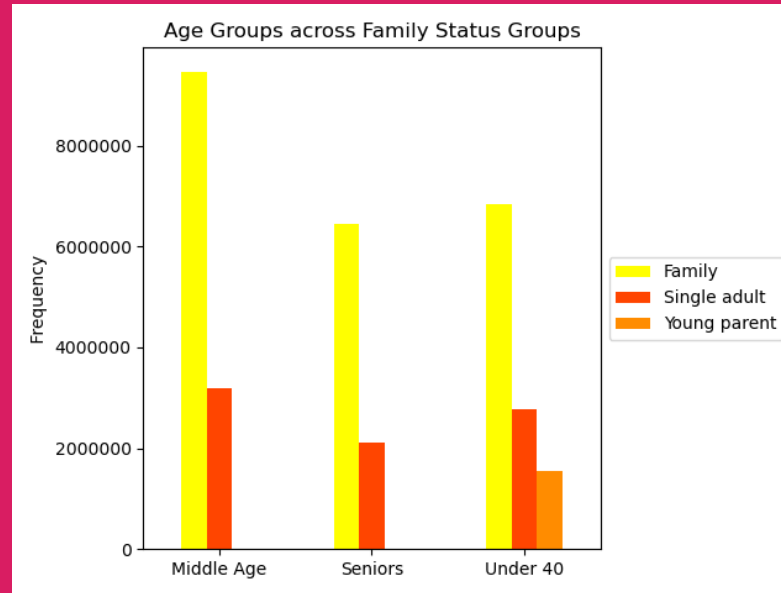
Instacart Analysis - Sample Visualizations

Key Question: Are there differences in ordering habits based on a customer's loyalty status?

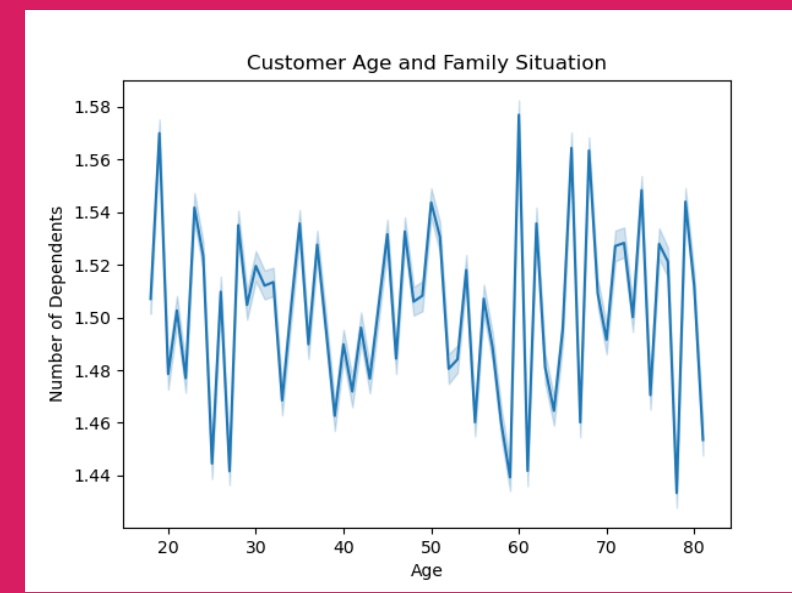


"Loyalty Flag" categorizes customers into three groups based on their max order count. Loyal customers place higher number of orders individually, while the total number of regular customers is significantly larger, resulting in the highest total number of orders.

Key Question: Is there a connection between age and family status in terms of ordering habits?



"Family" members consistently place the most orders on Instacart, followed by single adults, with young parents ordering the least, regardless of age group. This emphasizes that age isn't strongly linked to ordering patterns based on family status.



There isn't a straightforward link between a customer's age and the number of dependents they have.

Recommendations

Ad Scheduling

Schedule advertisements during the least busy periods, such as weekdays with a focus on late afternoon and evening.

Weekdays, especially Wednesdays, have lower order activity, making them ideal for advertising campaigns.

Promotions

Order activity declines during the week. To boost user engagement, introduce time-limited deals, such as those ending in 3 days, by the end of the week, or even offer "Happy Hour" time-sensitive discounts.

Loyalty Rewards

Create and promote loyalty programs for loyal and regular users. Offer exclusive loyalty discounts, early access to promotions, and personalized recommendations to encourage repeat orders.

New Customers

Focus on onboarding and retaining new customers. Ensure a smooth initial experience with Instacart, clear product recommendations, and a user-friendly platform. Send welcome offers or discounts to encourage their first orders.

Family-Centric Promotions

Since family members consistently make the most orders across age groups, develop promotions and loyalty programs tailored to families. Offer incentives like family bundle discounts and free delivery for larger orders to cater to their needs.

Deliverables:



Final Report



GitHub project folder

MANY THANKS

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