

Udacity

Marketing Analytics

Nanodegree Program
Project: Craft a Report

Objective Results

Asses the data and report on the performance against the objectives:

Performance:

year	total_sales	total_ad_spend
2017	\$1,594,914	\$607,610
2018	\$2,092,431	\$837,156
growth_percentage	31.19%	37.78%

Objective Results

Increase total sales by 30% on Black Friday 2018 vs. Black Friday 2017.

The data shows that total sales on Black Friday 2018 increased by 31.19%, which is meet the objective 30%.

Decrease total ad spend by 30% from Black Friday 2017 to Black Friday 2018.

The data shows that total spend on ads on Black Friday 2018 increased by 37.78%. This does not meet the objective.

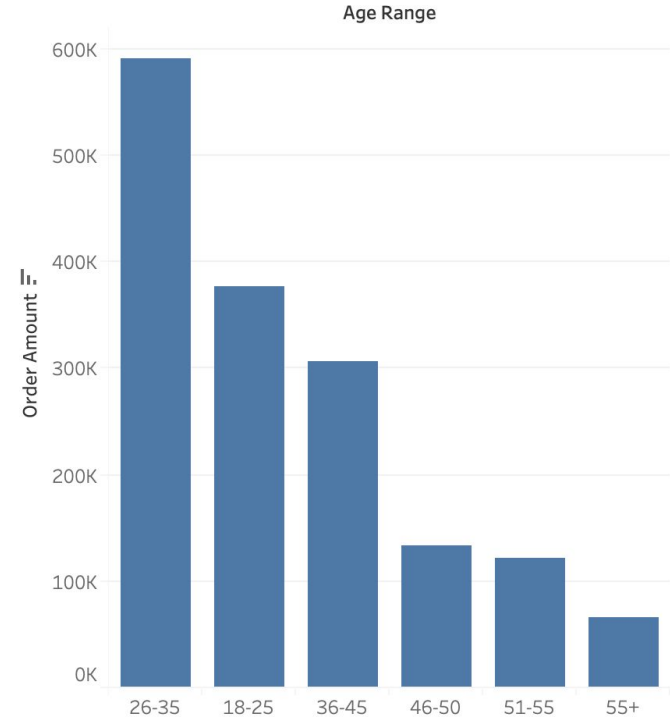
Evaluate the Audience

Sales amount by age-range 2017

The sales amount by age-range for 2017 is shown in the bar chart.

It shows that the age-range of 26-35 generated most sales.

Sales Amount by Age-range 2017



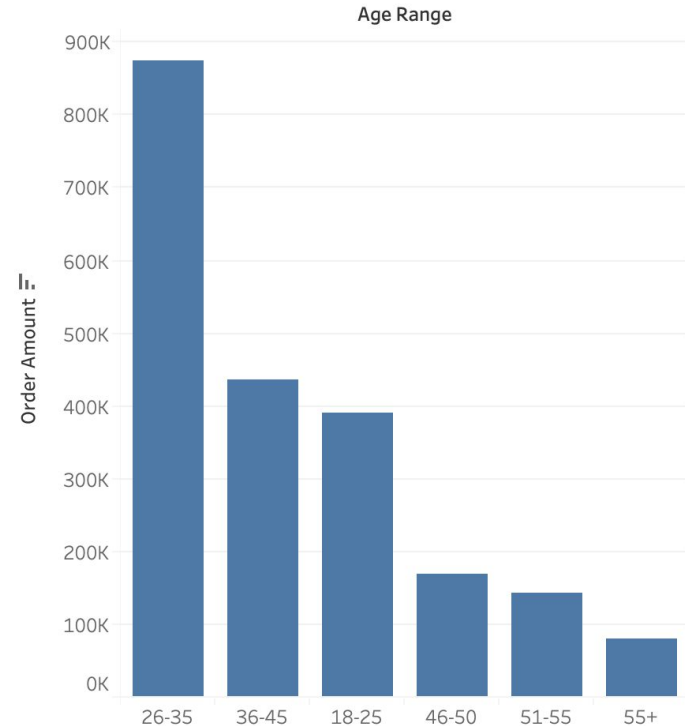
Evaluate the Audience

Sales amount by age-range 2018

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Sales amount by age-range 2018



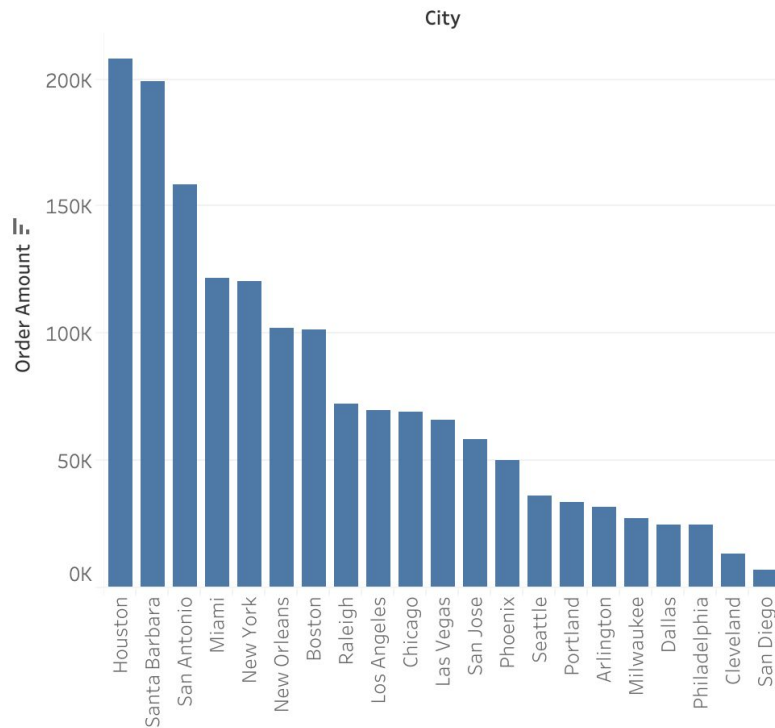
Evaluate the Audience

Sales amount by City 2017

The sales amount by city for 2017 is shown in the bar chart.

It shows that Houston generated most sales.

Sales Amount by city 2017



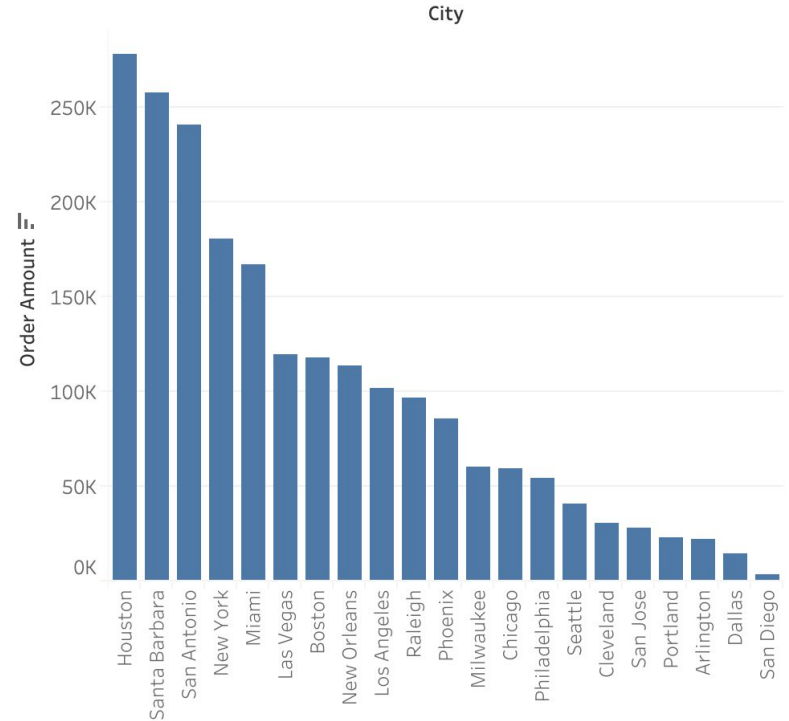
Evaluate the Audience

Sales amount by City 2018

The sales amount by city for 2018 is shown in the bar chart.

It shows that Houston generated most sales.

Sales amount by city 2018



Evaluate the Audience

Other Insights for 2017:

How many repeat customers did we have?

We have 1909 repeat customers for Black Friday 2017.

What was the average order volume for a user?

The total sales of 2017 is \$1,594,914, these are for 17311 orders, so the average order volume per user is about \$92.

Evaluate the Audience

Other Insights for 2018:

How many repeat customers did we have?

We have 2589 repeat customers for Black Friday 2018. This is more than the 1909 in 2017. So repeat customers increased from 2017 to 2018.

What was the average order volume for a user?

The average order volume per user is about \$93.

Evaluate the Marketing

ROI on Paid Channel in 2017

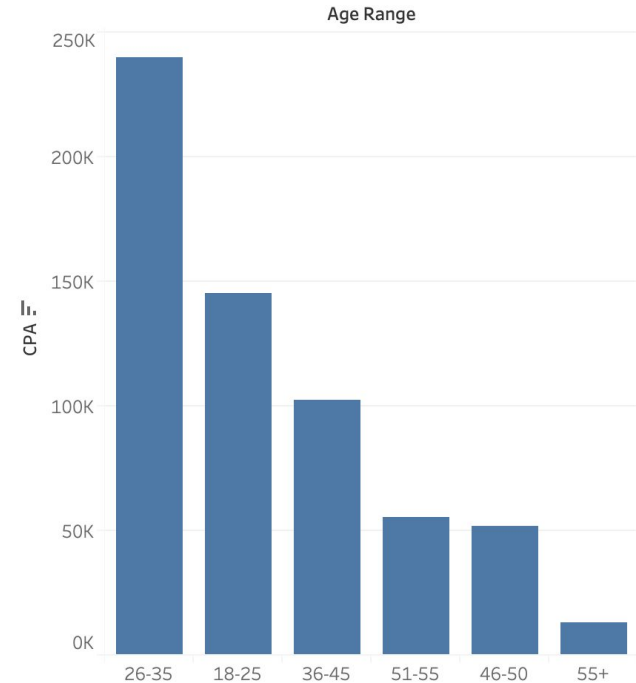
Total sales of users on paid channels is 656,431,
CPA is 607,610, ROI =
 $(656,431 - 607,610) / 607,610 = 8\%$.

The ROI is positive.

Which age-range had the best CPA in 2017?

Age-range 26-35 had the best CPA

CAP by age-range 2017



Evaluate the Marketing

ROI on Paid Channel in 2018

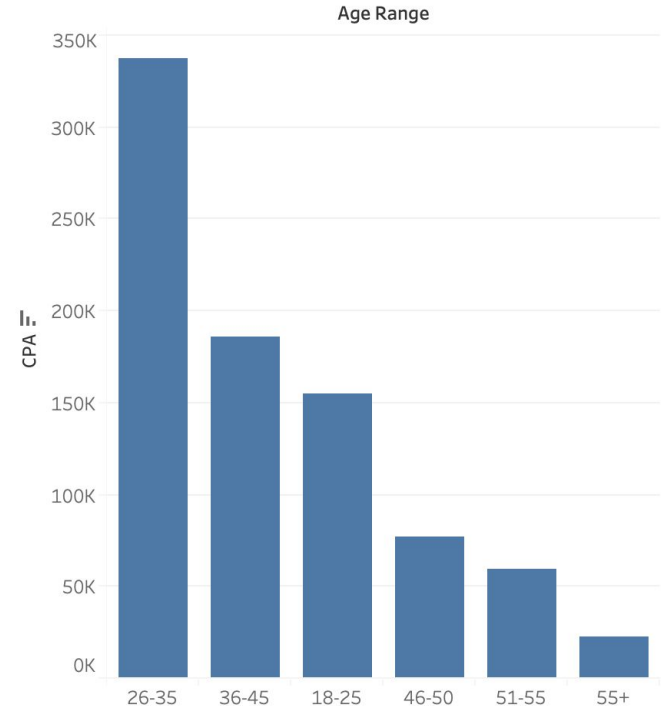
Total sales of users on paid channels is 893,189,
CPA is 837,156, ROI =
 $(893,189 - 837,156) / 837,156 = 7\%$.

The ROI is positive.

Which age-range had the best CPA in 2018?

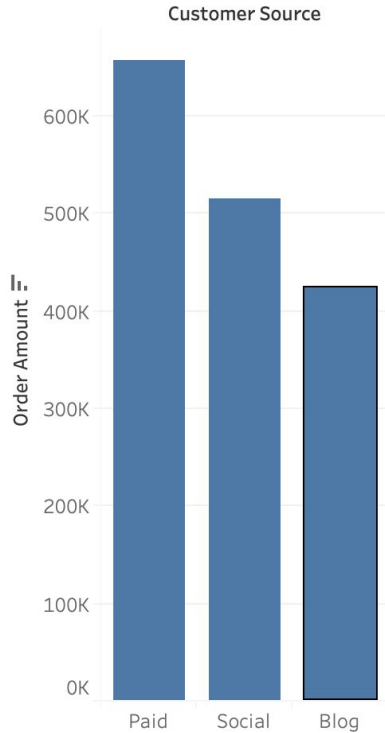
Age-range 26-35 had the best CPA

CPA by age-range 2018

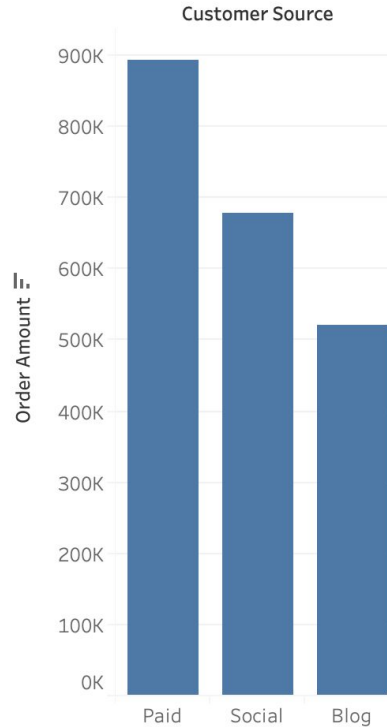


Evaluate the Marketing

Total sales by channel 2017



Sales amount by channel 2018



Evaluate the Sales

How much revenue did we generate in 2017?

\$987,304

How much revenue did we generate in 2018?

\$1,255,275

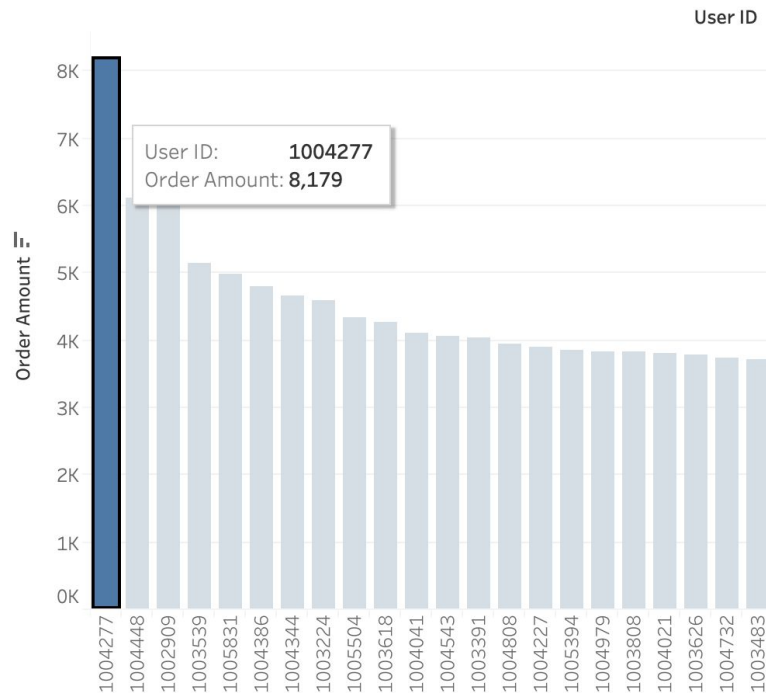
year	total_sales	total_ad_spend	revenue
2017	\$1,594,914	\$607,610	\$987,304
2018	\$2,092,431	\$837,156	\$1,255,275

Evaluate the Sales

Which customer spent the most money?

User 1004277 spent the most money in 2018, the amount is \$8,179

Order Amount by User ID 2018

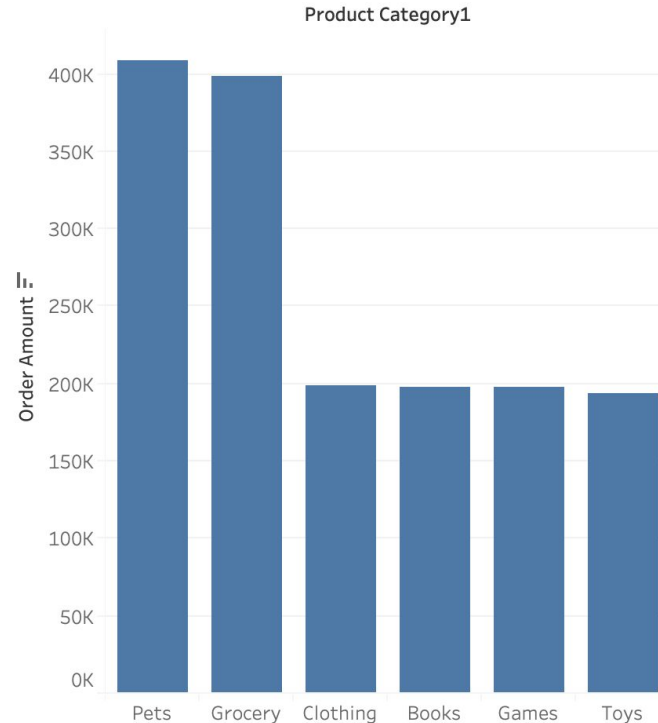


Evaluate the Product Categories

Which product category was most popular in 2017?

As shown in the bar chart in the right, Pets was most popular in 2017.

Total sales by Category 2017



Evaluate the Product Categories

Which product category was most popular in 2018?

As shown in the bar chart in the right, Grocery was most popular in 2018.

Total sales by Category 2018

