# Udacity
# Marketing Analytics

## Nanodegree Program
## Project: Craft a Report

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# Objective Results

| year | total ad spend | total sales |
|------|----------------|-------------|
| 2017 $ | 607,610.41 | $ 1,594,913.85 |
| 2018 $ | 837,155.55 | $ 2,092,431.46 |
| growth | 37.78% | 31.19% |

**Increase total sales by 30% on Black Friday**

**2018 vs. Black Friday 2017.**

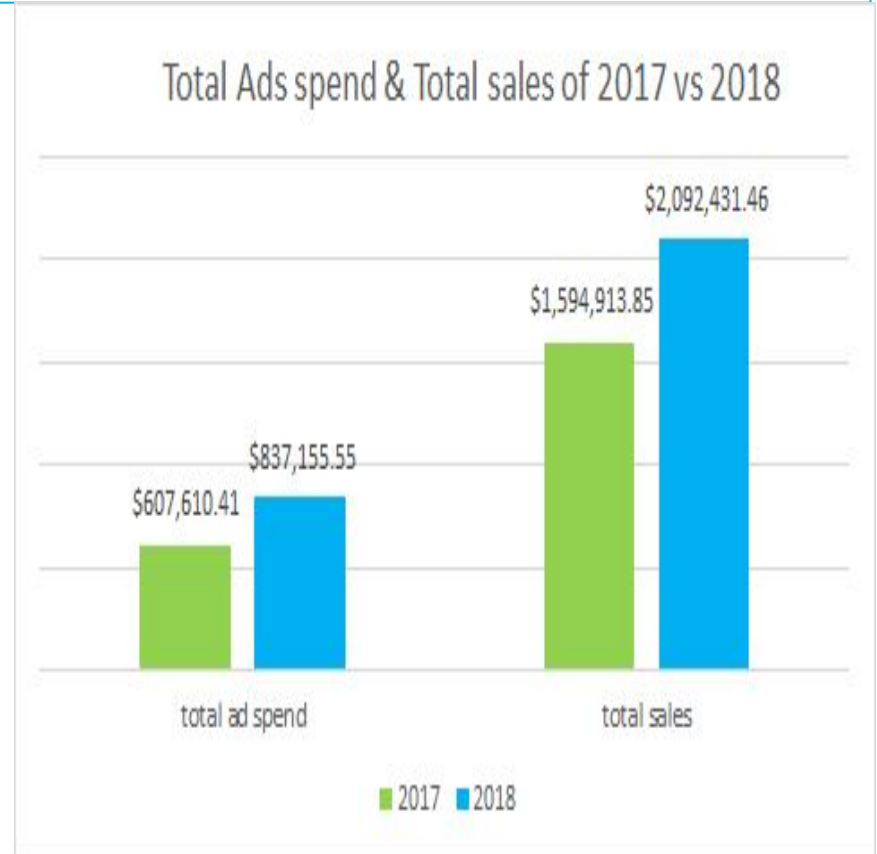In 2018, sales climbed by $497,517.61,

representing a 31.19% rise which was accomplished.

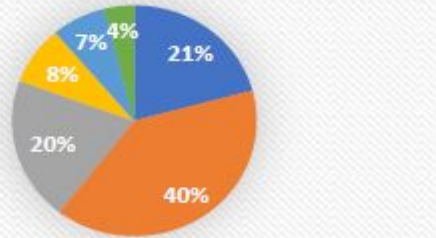**Decrease total ad spend by 30% from Black Friday**

**2017 to Black Friday 2018.**

In 2018, advertising expenditures rose by $229,545.14, or 37.78% in

which the goal was not achieved.



Total Ads spend & Total sales of 2017 vs 2018

# Evaluate the Audience



Total sales proprotion by age range 2017-2018



Total sales amount by age range for year 2017-2018

| Age Range | Sales |
|-----------|-------|
| 55+ | $146,173.62 |
| 51-55 | $265,181.12 |
| 46-50 | $302,139.21 |
| 36-45 | $741,671.22 |
| 26-35 | $1,465,045.33 |
| 18-25 | $767,134.81 |

**Which Age-Range generated the most sales?**

From the analysis, the age range with the most total sales amount is $1,465,045.33 followed by the 18-25 group averaging $767,134.81. Also, the age range 46-45 provided $741,671.22. The groups 46-50, 51-55 and 55+ all produced $302,139.21, $265,181.12 and $146,173.62 respectively.
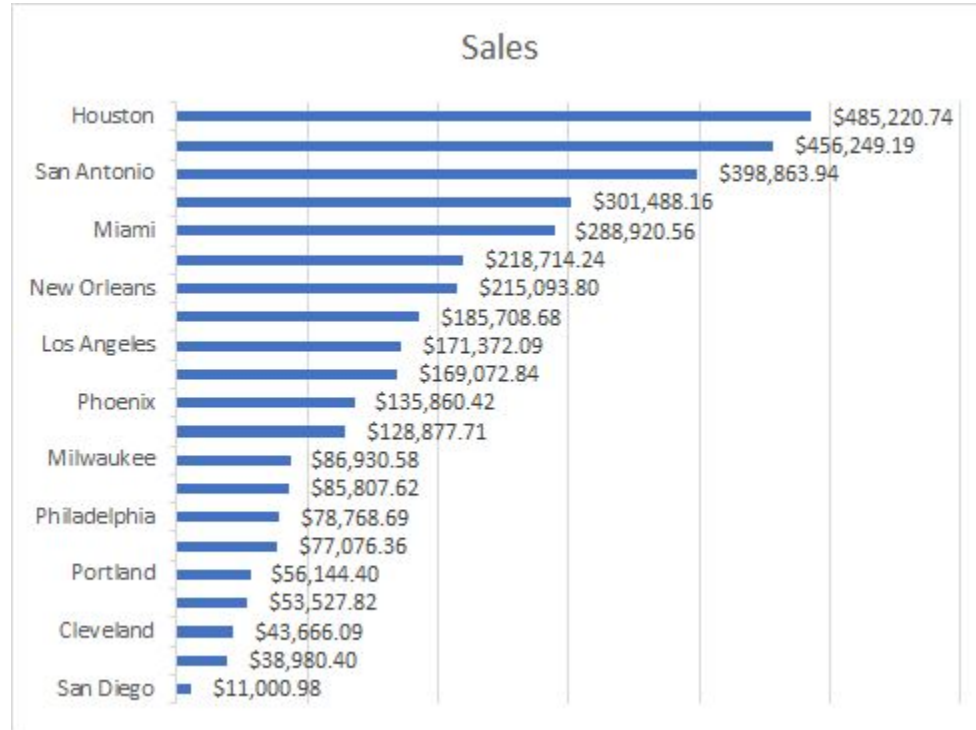
# Evaluate the Audience

**Which City generated the least sales?**

From the analysis, the city that generated

The least sales from 2017-2018 was

San Diego

# Evaluate the Marketing

| | Total sales | Total CPA | ROI |
|---|---|---|---|
| Grand Total | 1549620.54 | 1444765.96 | 7.26 |

**Was the ROI on our Paid Channel positive or negative?**

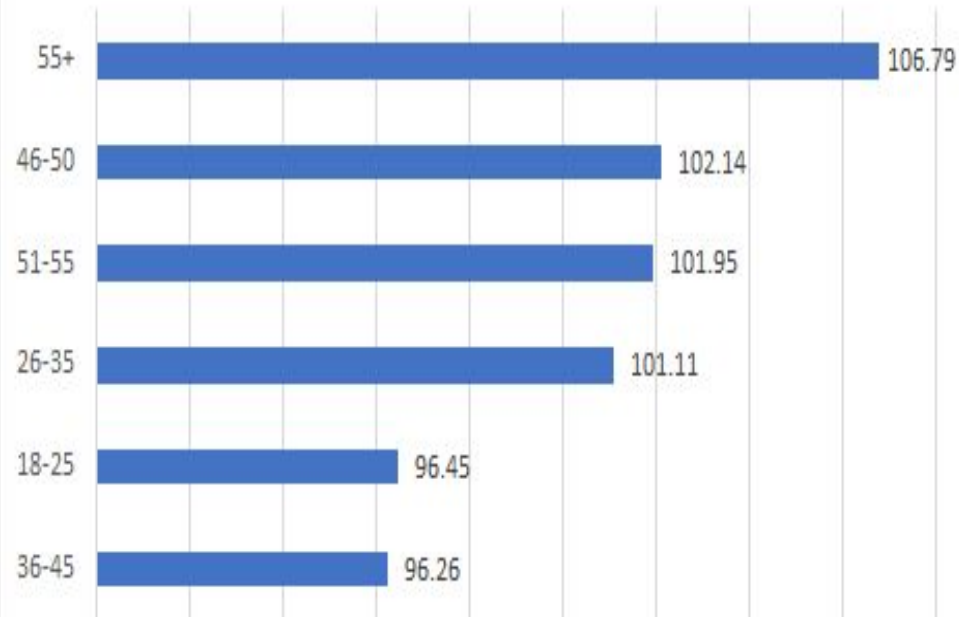**What was it? Which age-range had the best CPA?**

From the analysis, the ROI 7.26% and positive. Also, the

Age range of 36-45 provided the best CPA at 96.26 followed

The range of 18-25 averaging 96.45 with the other ranges

Significantly further from the rest.



Average CPA by Age group 2017-2018

| Age group | Average CPA |
|---|---|
| 55+ | 106.79 |
| 46-50 | 102.14 |
| 51-55 | 101.95 |
| 26-35 | 101.11 |
| 18-25 | 96.45 |
| 36-45 | 96.26 |

# Evaluate the Marketing

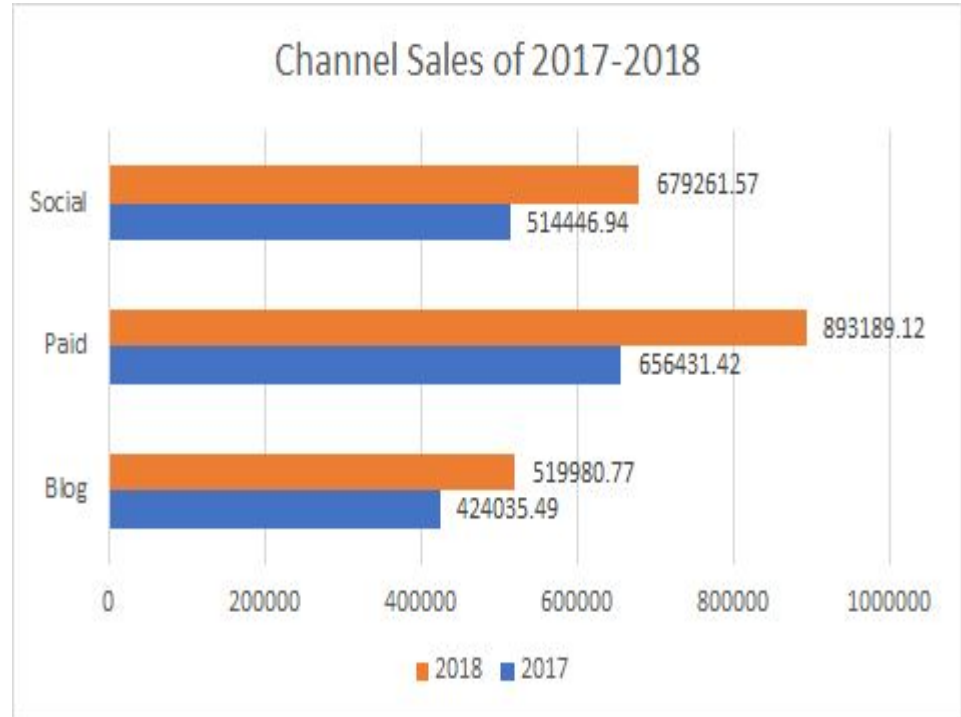**Which channel was the biggest driver**

**in sales for 2017? For 2018?**

From the visualization, paid channels

Provided the most massive driving force for

Both years amounting to $893,189.12 and

$656,431.42 for the years 2018 and 2017

respectively.



Channel Sales of 2017-2018

# Evaluate the Sales

**How much revenue did we generate in 2017?**

**In 2018?**

From the visualization, the total revenue

Of year 2017 was  $1,594,913.85 compared to

 $2,092,431.46 for year 2018.

## Total revenue through year 2017 and 2018

| | 2017 | 2018 |
|---|---|---|

(Bar chart showing $2,500,000.00, $2,000,000.00, $1,500,000.00, $1,000,000.00, $500,000.00, $- axis values)

# Evaluate the Sales

**What was our average order amount in**

**2017 vs 2018?**

The visualization depicts that the average

Order amount for year 2017 to

2018 are 92.13 to 93.45 respectively.



Average Order Amount
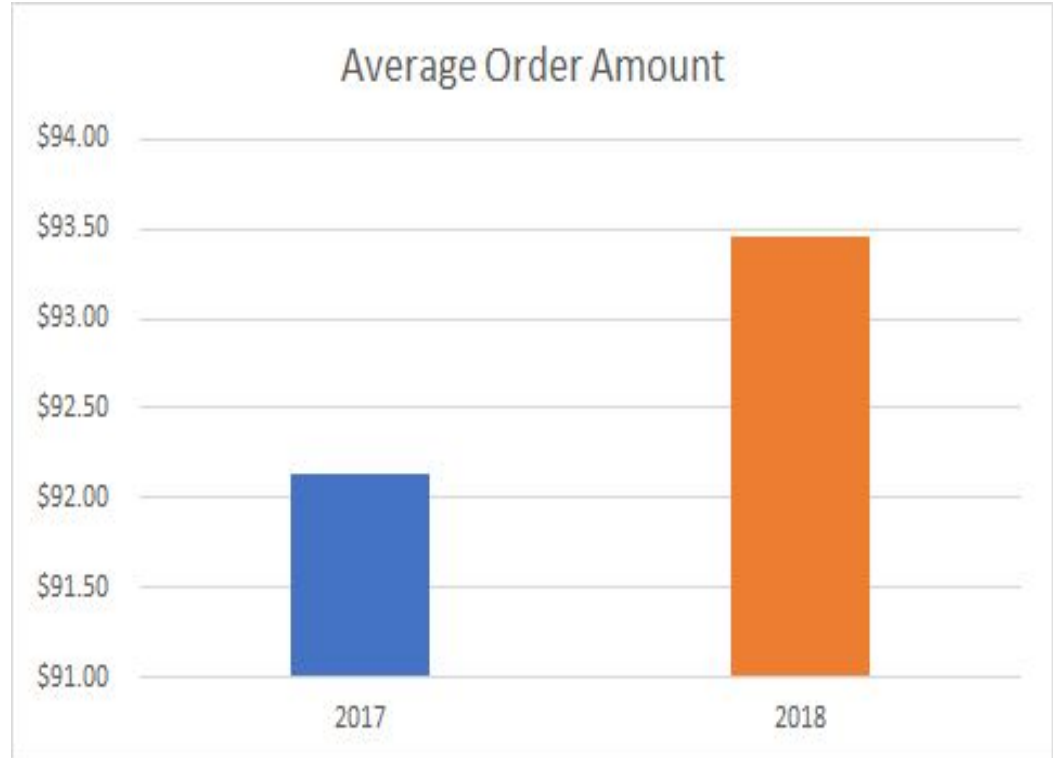
# Evaluate the Product Categories

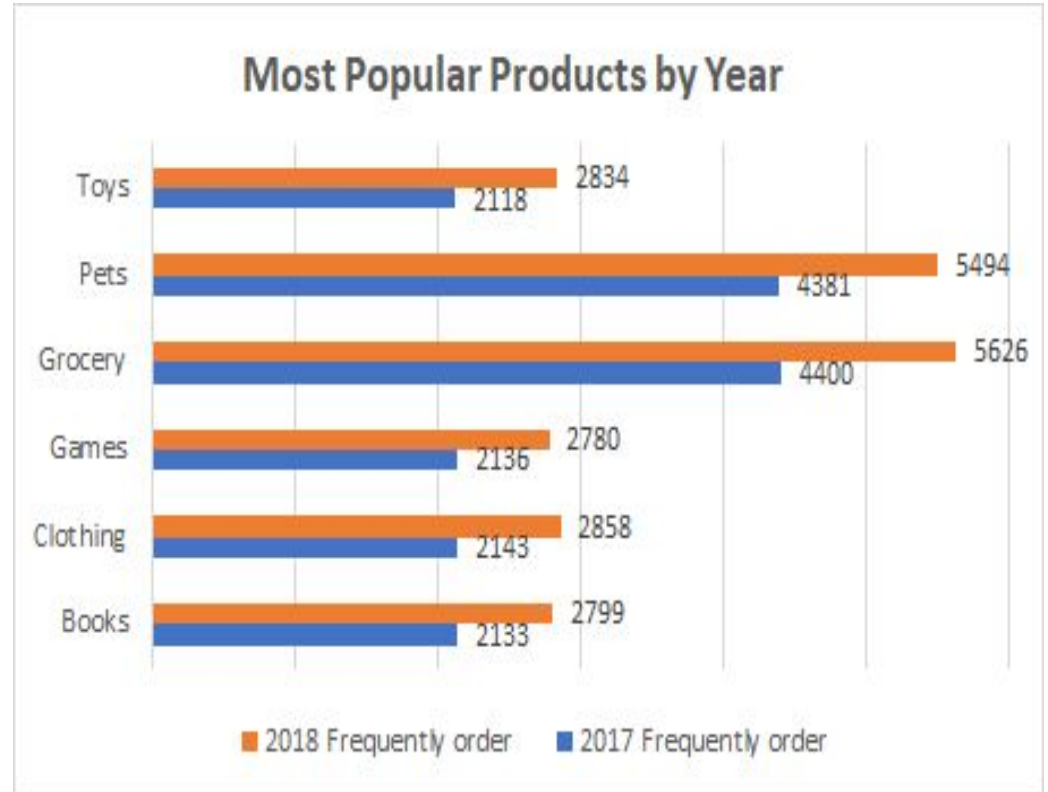**Which product category was most**

**popular in 2017 & 2018?**

The most popular product categories

For both years were groceries and pets.

Groceries had 5,626 and 4,400 orders for

2017 and 2018. Pets had 5,494 and 4,381

For 2017 and 2018 accordingly.

## Most Popular Products by Year

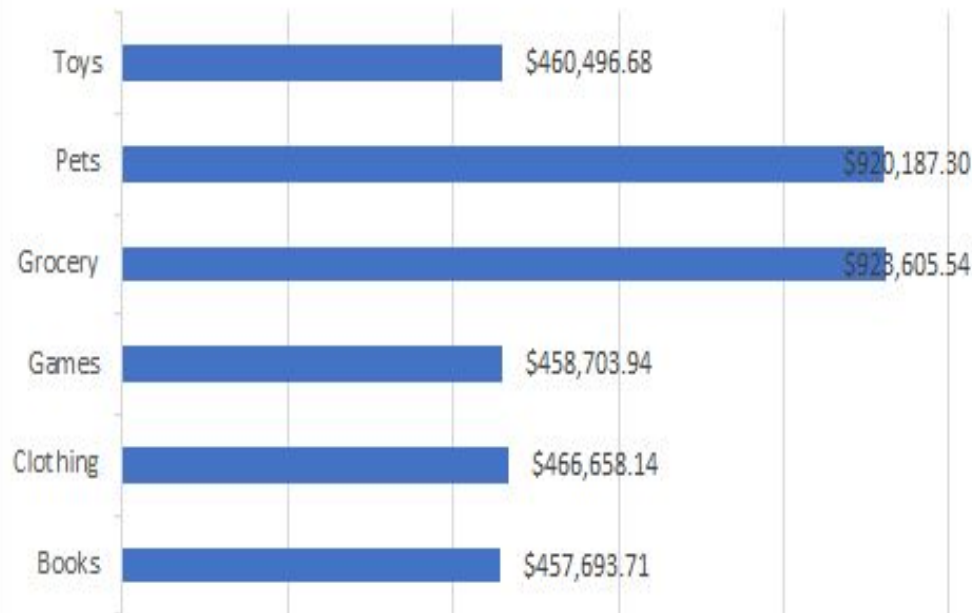| Category | 2018 Frequently order | 2017 Frequently order |
|----------|----------------------|----------------------|
| Toys | 2834 | 2118 |
| Pets | 5494 | 4381 |
| Grocery | 5626 | 4400 |
| Games | 2780 | 2136 |
| Clothing | 2858 | 2143 |
| Books | 2799 | 2133 |

■ 2018 Frequently order   ■ 2017 Frequently order

$ 923,605.54

# Evaluate the Product Categories

**Demonstrate sales by product category**

From the analysis, its paramount that

Groceries and pets were the highest with

$923,605.54 followed by pets with

$920,187.30. Clothing came in next with

$466,658.14 then Games, Books and Toys

all amounting  $458,703.94,  $457,693.71

and   $460,496.68 respectively.

### Sales by Product Category for Year 2017-2018

| Category | Sales |
| --- | --- |
| Toys | $460,496.68 |
| Pets | $920,187.30 |
| Grocery | $923,605.54 |
| Games | $458,703.94 |
| Clothing | $466,658.14 |
| Books | $457,693.71 |

# Everything Else

- The data used for the analysis of the project can be downloaded from https://learn.udacity.com/nanodegrees/nd028/parts/cd0646/lessons/360126 ef-dede-48ff-b672-9e0f565725ce/concepts/65a72396-9816-4612-afa9-6dad 76c3fb0a
- Excel visualizations were used for all the plots.