Goals

Marketing team aims to enhance the upcoming
campaign of new product for optimal result.

What to do ?

Build a *predictive model* to identify factors and customer
characteristics that contribute to maximizing campaign profitability.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	ID	Year_Birth	Education	Marital_Status	Income	Kidhome	Teenhome	Dt_Customer	Recency	MntWines	MntFruits	MntMeatProducts	MntFishProducts	MntSweetProducts	M
2	5524	1957	Graduation	Single	58138	0	0	2012-09-04	58	635	88	546	172	88
3	2174	1954	Graduation	Single	46344	1	1	2014-03-08	38	11	1	6	2	1
4	4141	1965	Graduation	Together	71613	0	0	2013-08-21	26	426	49	127	111	21
5	6182	1984	Graduation	Together	26646	1	0	2014-02-10	26	11	4	20	10	3
6	5324	1981	PhD	Married	58293	1	0	2014-01-19	94	173	43	118	46	27

https://github.com/clarentcelsia/Analytics/tree/master/datasets
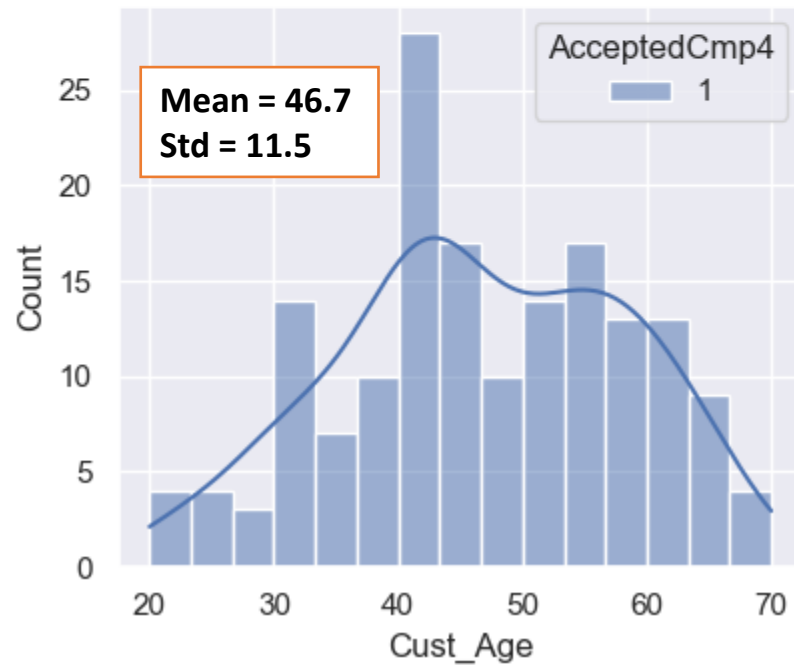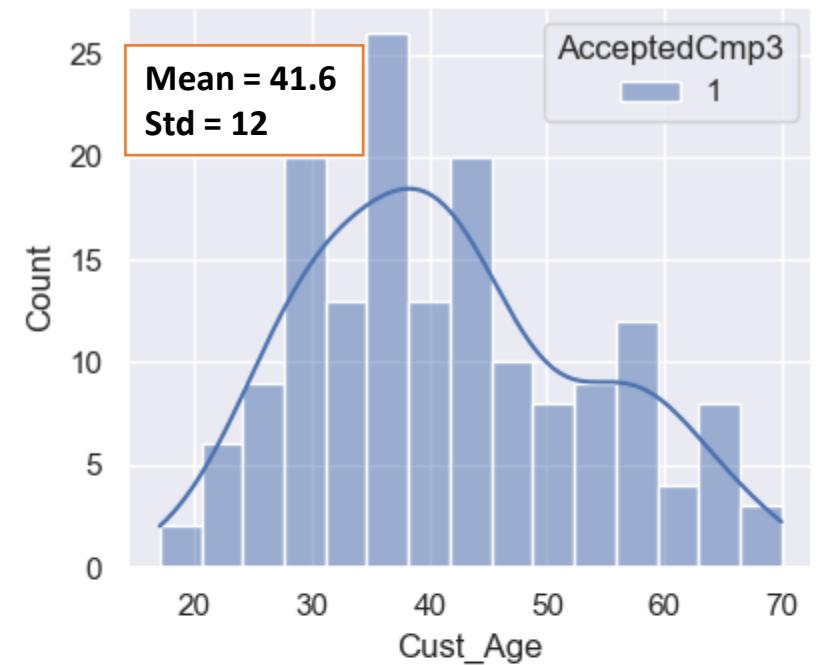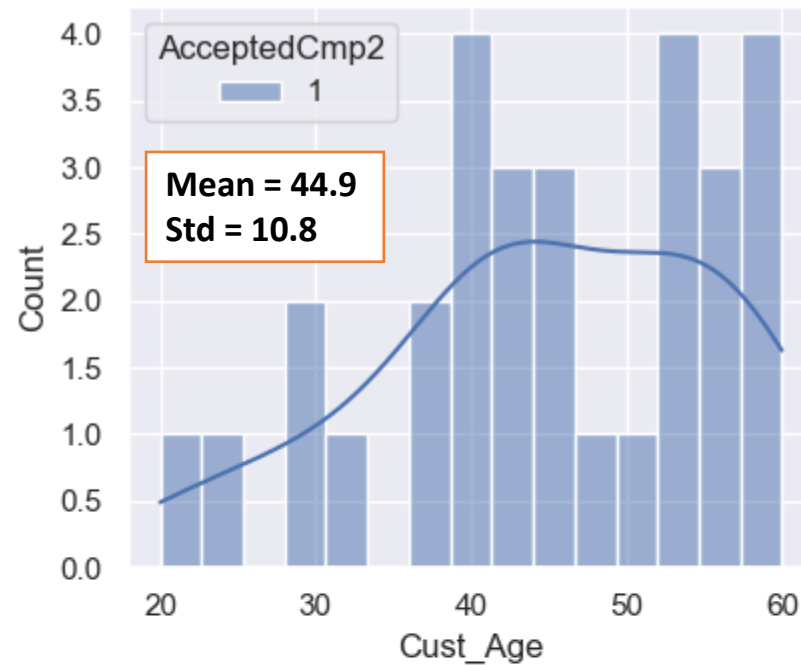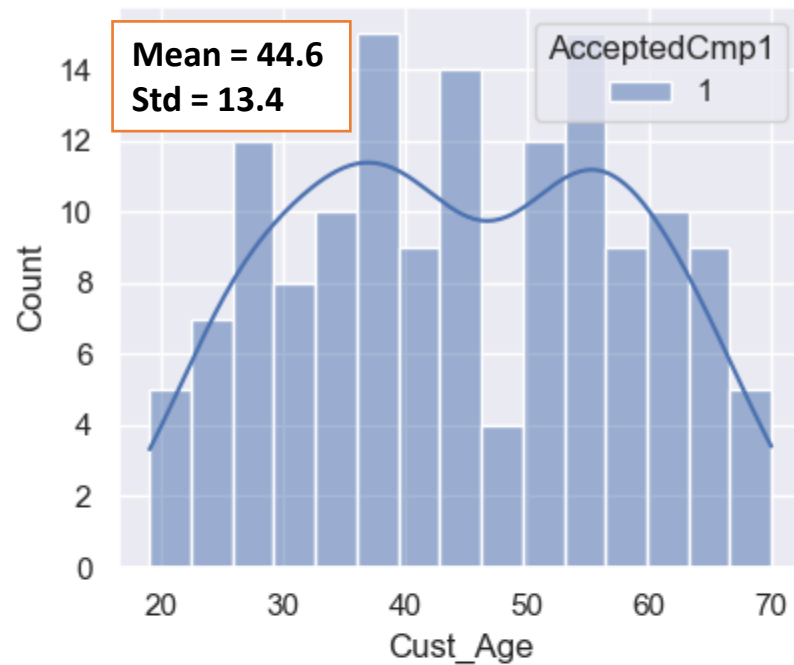
Insights   Customer Age
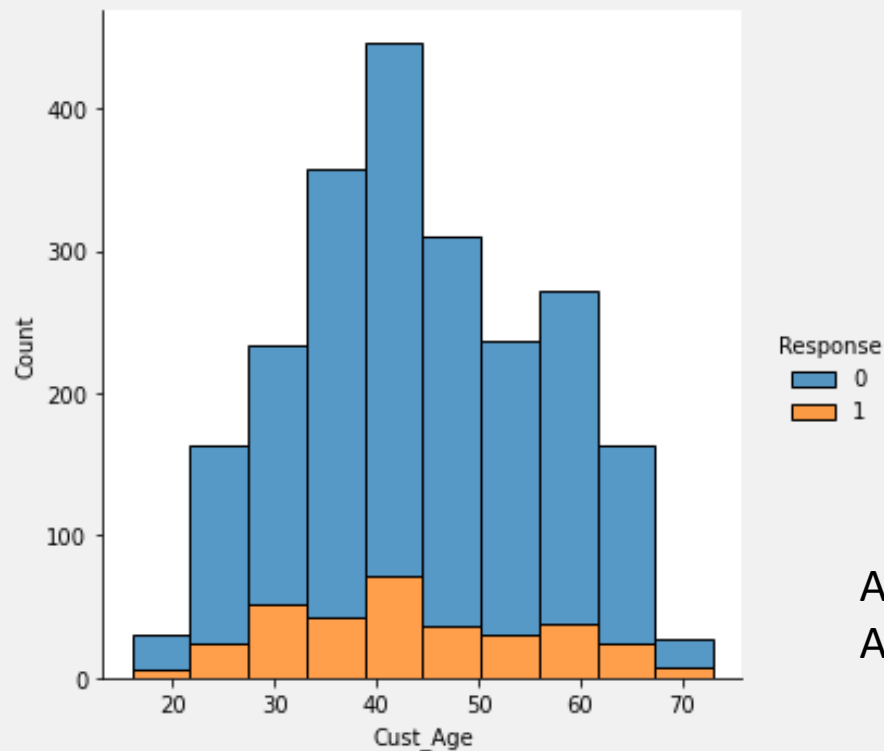
Customer is in their $30^{th} - 50^{th}$ is the customer with the most accepted of the latest campaign. (*Distribution Graph*)
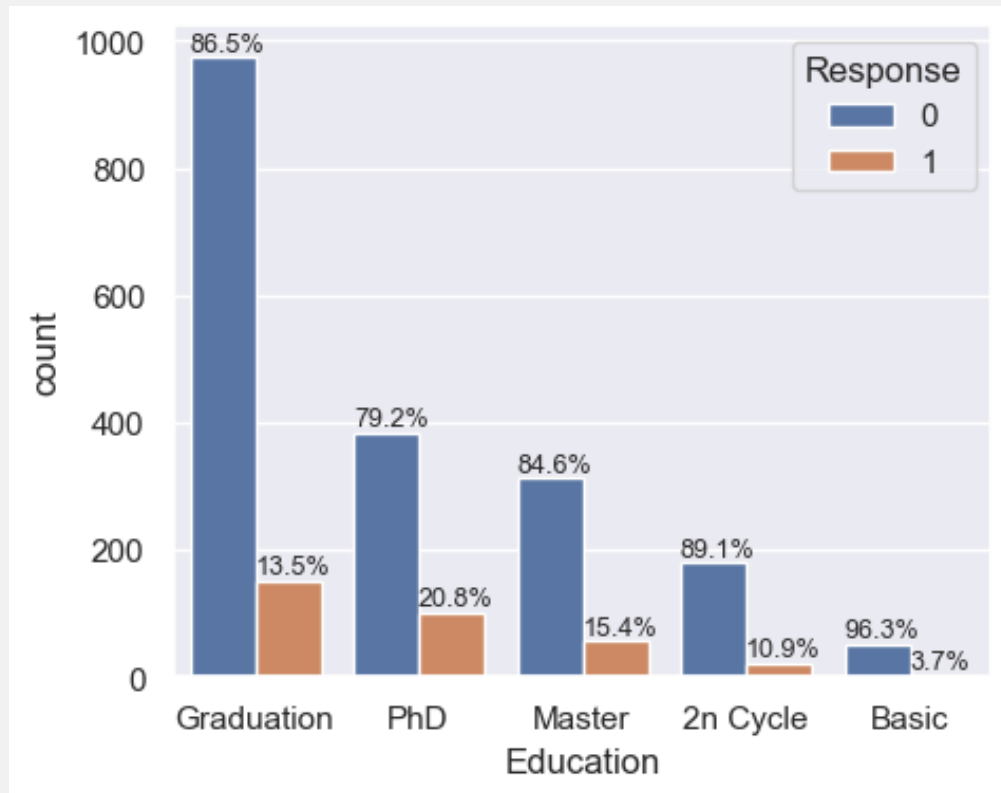
With previous campaign ?

Average of Customer Age
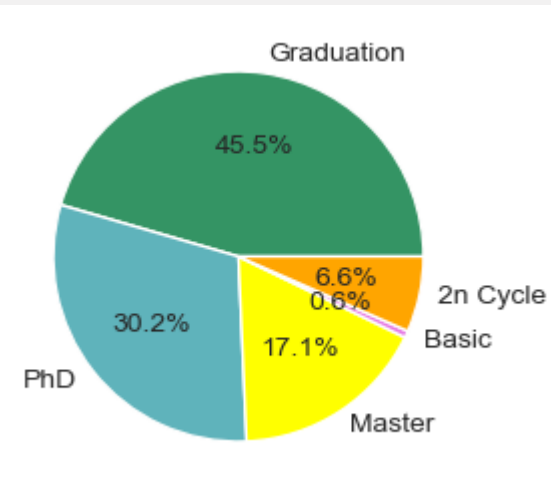Accept the Campaign : **43.33**
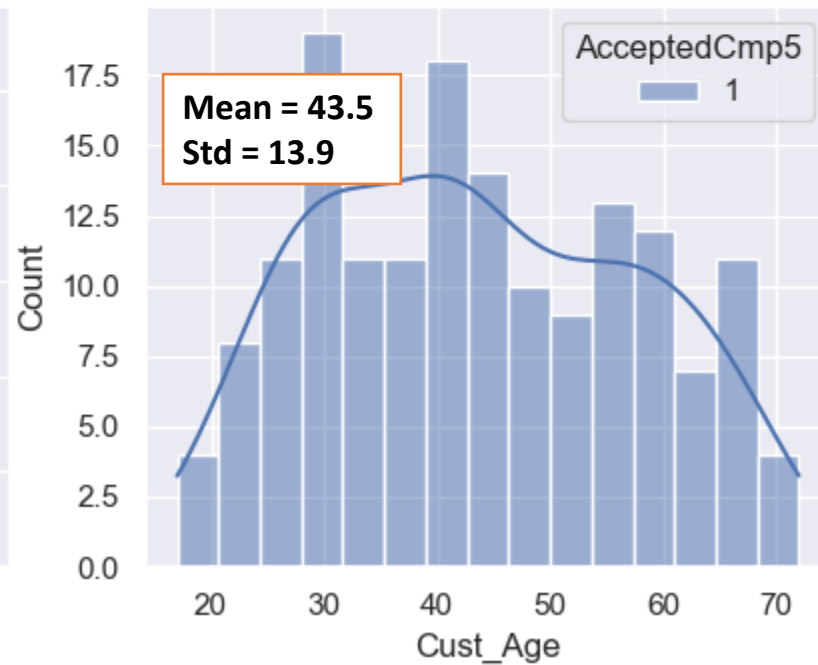
From campaign 1 – latest(6th), the average age of customers accepting the campaign offering falls within 40s range.
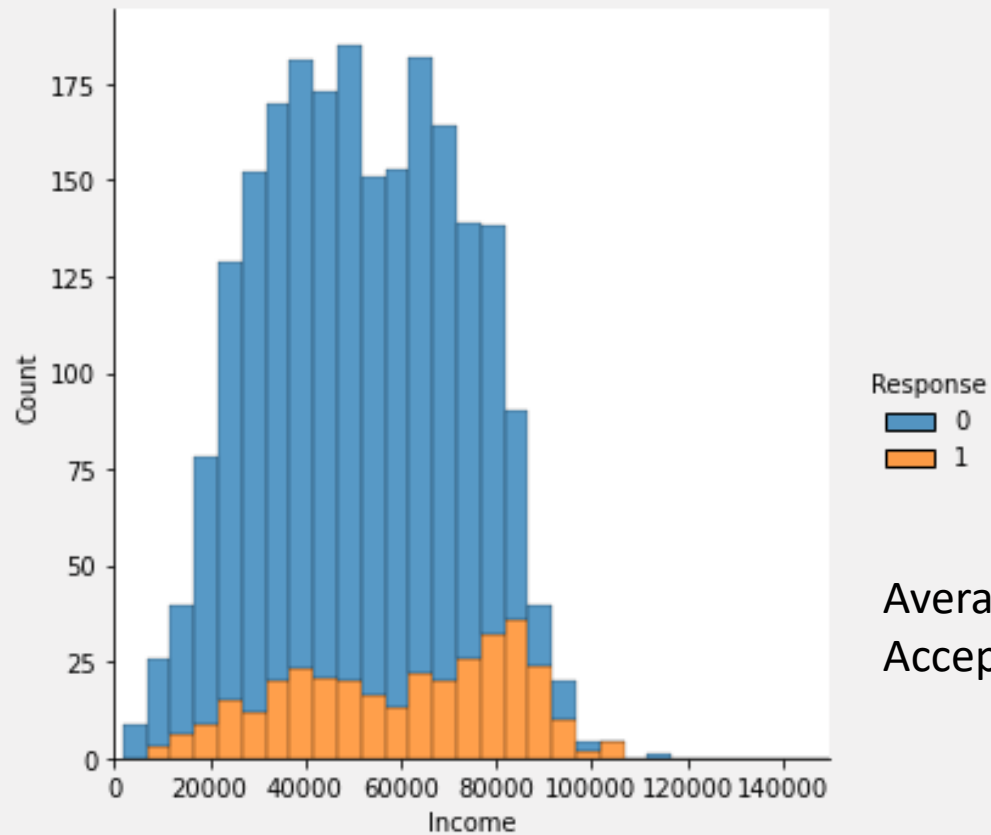
Insights

Education Level

The majority of the company's customers are at Graduation level, but only 13.5% have accepted the campaign, in contrast, Master and PhD customer has slightly higher acceptance rate of the campaign, with 15,4% and 20.8%
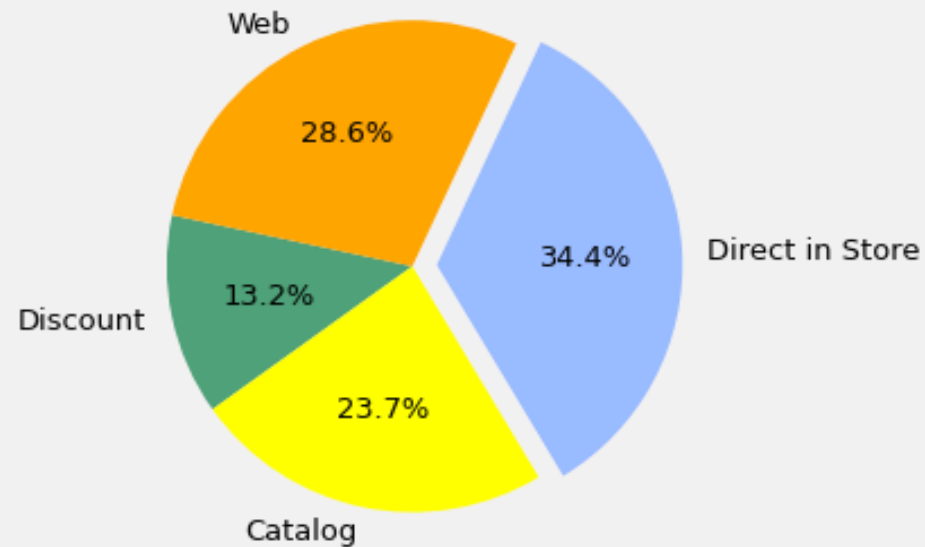
Insights   Income

Average of Customer Income
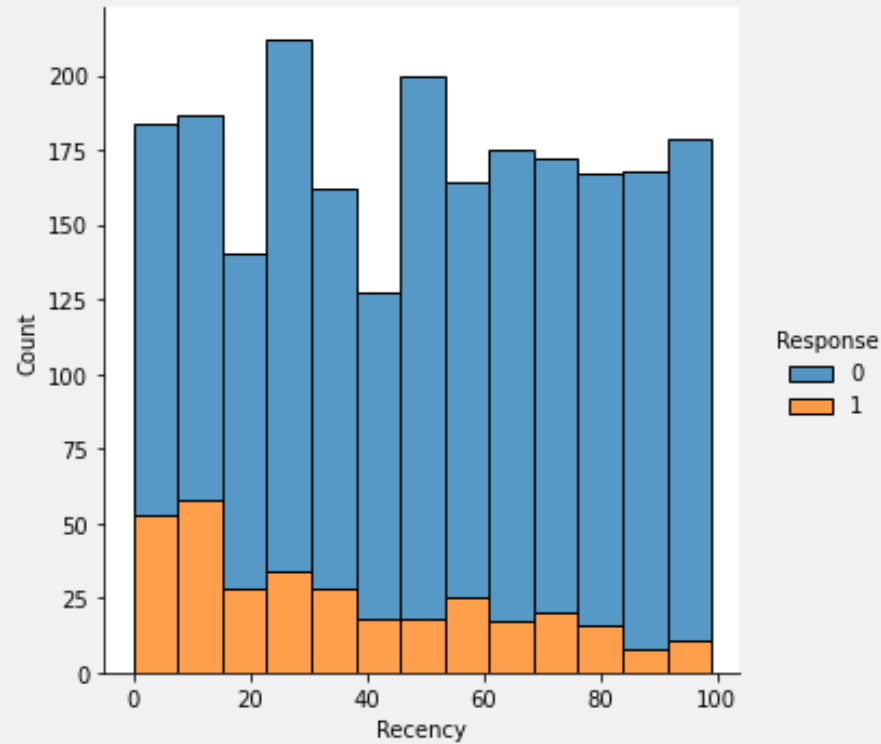Accept the Campaign : **60183.24**

Insights Purchase Made

34.4 % Customer accepted the campaign made a purchase directly in store without discount.

(note: There's no record when the data has been created but the discount has been occurred for last 2 years.)

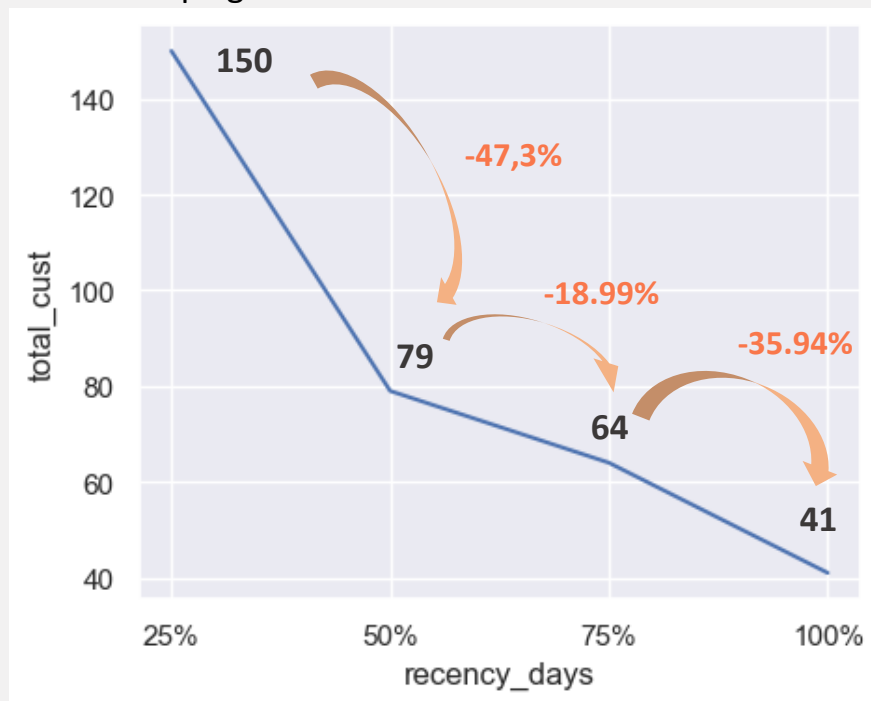| Label	Age (mean)
Discount	43.29
Catalog	43.63
Website	43.38
Direct In Store	43.33

Insights

Recency

Customer that have shown a positive response to the latest campaign offering is a customer with lower recency, especially recency **below 20.**

Recency Percentage Growth

Insights Recency
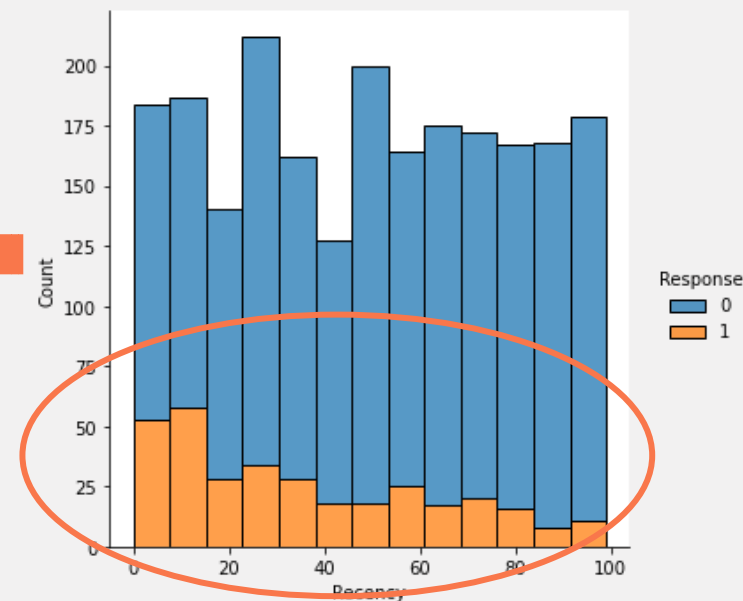
Latest Campaign

Note:
25% (Area 1, 0-25% max recency) – [0, 25]
50% (Area 2, 25% - 50% max recency) [25, 50]
75% (Area 3, 50% - 75% max recency) [50, 75]
100% (Area 4, 75-100% max recency) [>75]

Next insight :
How to improve customer retention.

Insights

Previous Campaign

The Influence of Previous Accepted Campaign on Latest Campaign
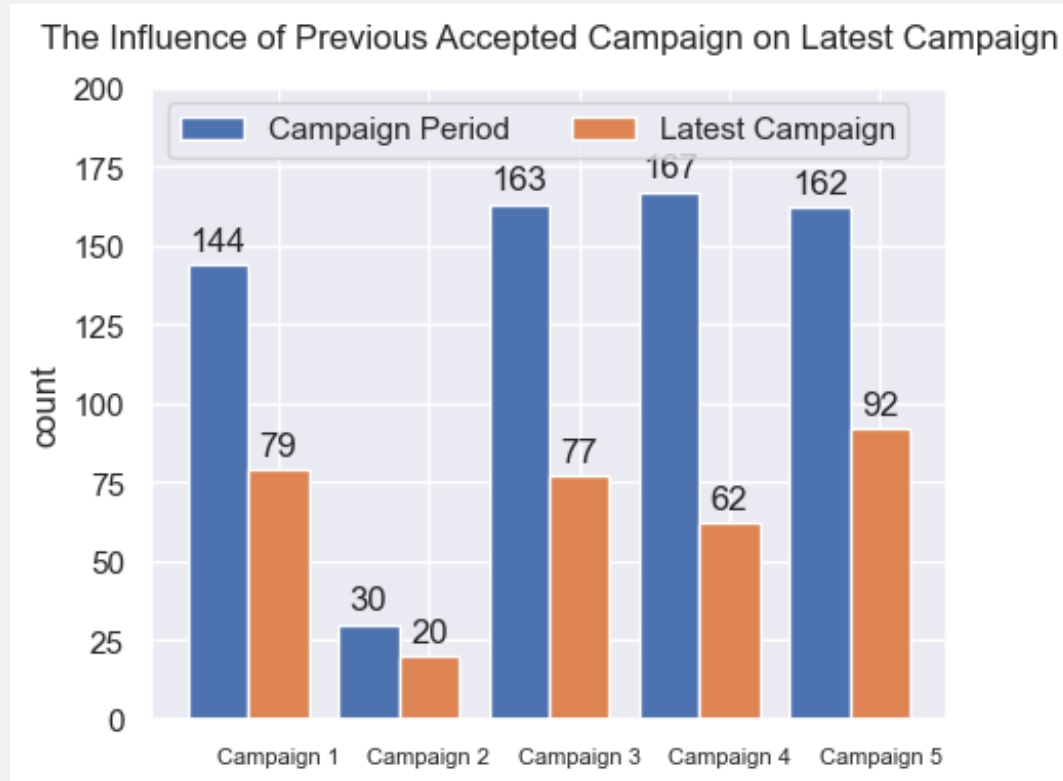
- The most positively received response in the latest campaign came from customers who originated from **Campaign 5**.

Prev Campaign	Proportion Rate (%)
Campaign 1	54.86
Campaign 2	66.67
Campaign 3	47.24
Campaign 4	37.13
Campaign 5	56.80

Insights **Product Sales**
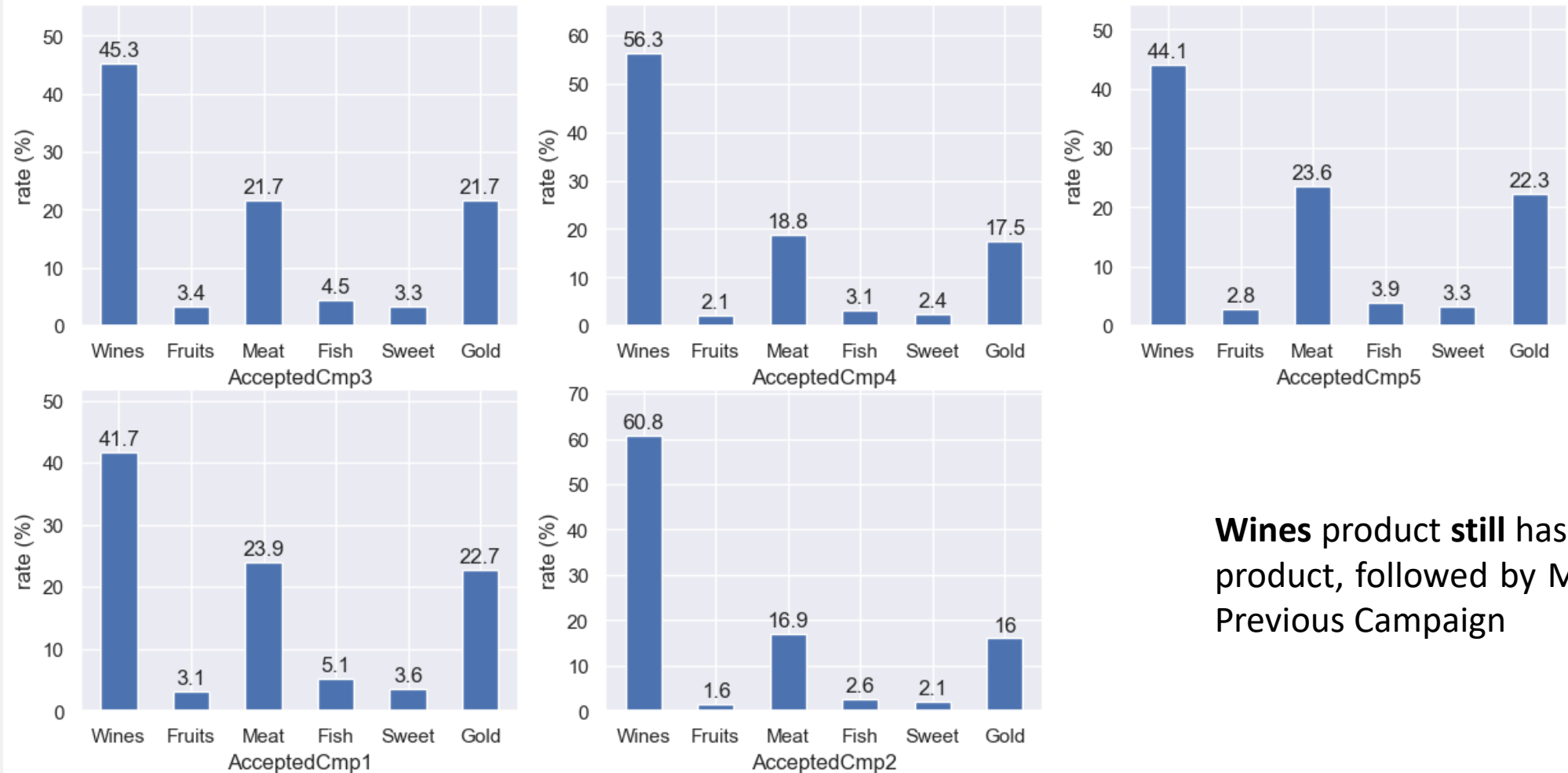

Sales Rate of (Accepted) Last Campaign
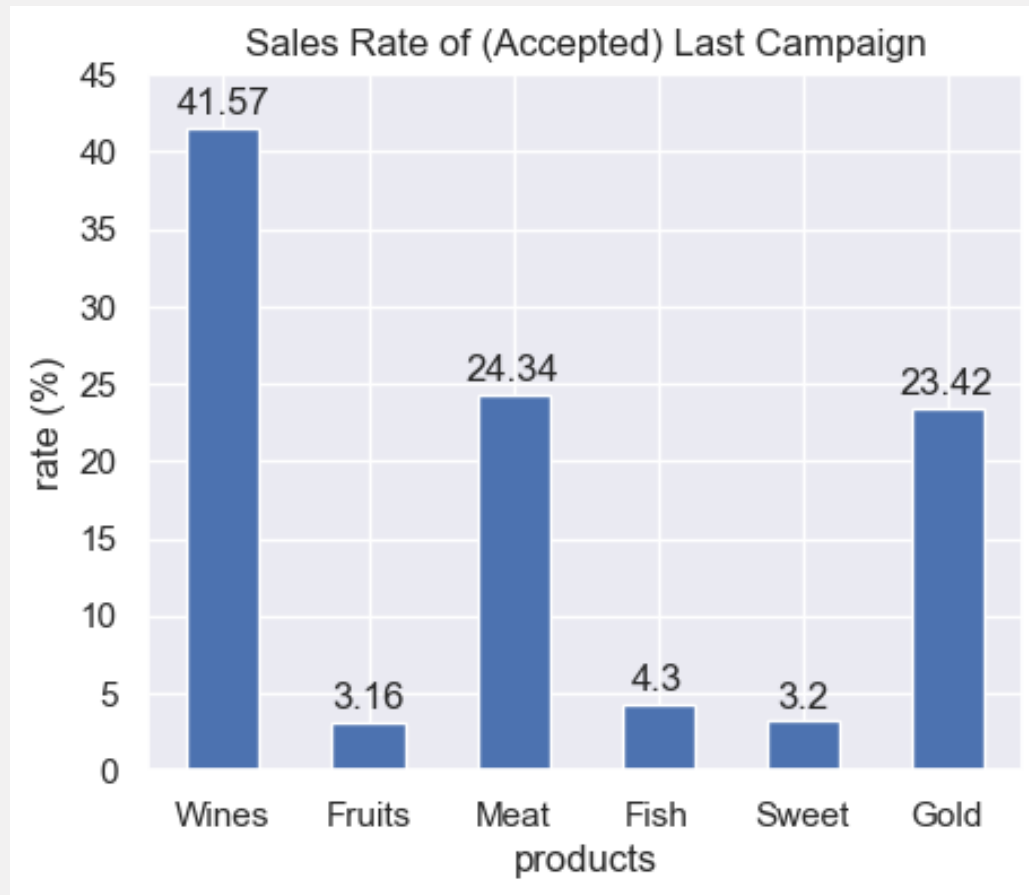
Wines product has the most selling product, followed by **Meat and Gold**

Insights   Product Sales over Previous Campaign

Sales Rate of (Accepted) Previous Campaign

Wines product **still** has the most selling product, followed by Meat and Gold in Previous Campaign

Model Summary

Top 10 Features with the Most Influence on the Latest *Accepted* Campaign.

10 top features have been selected which have an impact on model, where the model itself will be a benchmark in subsequent campaign optimization. Result that gives positive impact on campaign will be accepted as following:
- Customer with lower recency.
- Customer that accept the campaign 3, 5, and 1 has tendency to accept the latest campaign.
- Customer with high income.
- Customer with high interest in wines, gold, and meat products of campaign.
- Total visit of company's web has impact on campaign.