Business Problem:

A supermarket franchise is planning to launch a new offer and has started a marketing campaign to spread the news. They feel that a response model can provide a significant boost to the efficiency of the campaign by increasing responses and reducing expenses. So, they want to identify the different factors which affect the customer's response and to receive a customer profile of those customers who are more likely to respond positively, based on these factors.

The data contains the following columns:

AcceptedCmp1 - 1 if customer accepted the offer in the 1st campaign, 0 otherwise.
AcceptedCmp2 - 1 if customer accepted the offer in the 2nd campaign, 0 otherwise.
AcceptedCmp3 - 1 if customer accepted the offer in the 3rd campaign, 0 otherwise.
AcceptedCmp4 - 1 if customer accepted the offer in the 4th campaign, 0 otherwise.
AcceptedCmp5 - 1 if customer accepted the offer in the 5th campaign, 0 otherwise.
Response (target) - 1 if customer accepted the offer in the last campaign, 0 otherwise.
Complain - 1 if customer has complained in the last 2 years.
DtCustomer - date of customer's enrolment with the company.
Education - customer's level of education.
Marital - customer's marital status.
Kidhome - number of small children in customer's household.
Teenhome - number of teenagers in customer's household.
Income - customer's yearly household income.
MntFishProducts - amount spent on fish products in the last 2 years.
MntMeatProducts - amount spent on meat products in the last 2 years.
MntFruits - amount spent on fruits products in the last 2 years.
MntSweetProducts - amount spent on sweet products in the last 2 years.
MntWines - amount spent on wine products in the last 2 years.
MntGoldProds - amount spent on gold products in the last 2 years.
NumDealsPurchases - number of purchases made with discount.
NumCatalogPurchases - number of purchases made using catalogue.
NumStorePurchases - number of purchases made directly in stores.
NumWebPurchases - number of purchases made through company's web site.
NumWebVisitsMonth - number of visits to company's web site in the last month.
Recency - number of days since the last purchase.

Marketing Campaign Offer Acceptance Analysis
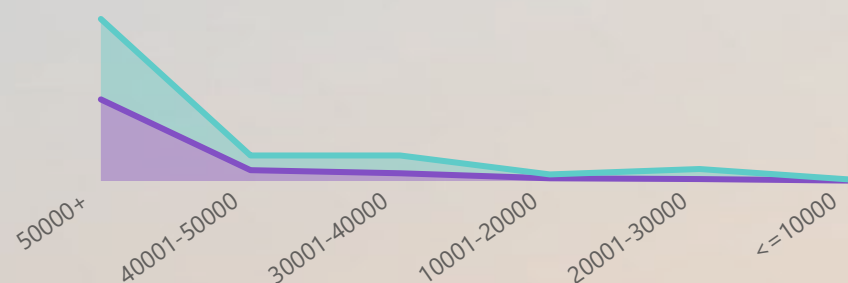
| 18-40 | 41-60 | 61+ |

| Divorced | Married | Single | Together | Widow |

Acceptance by Income

● Sum of Accepted_Past ● Sum of Accepted_Last

50000+ / 40001-50000 / 30001-40000 / 10001-20000 / 20001-30000 / <=10000

Customers	Average Age	Average Income	Acc. in Last Camp.	Acc. in Past Camp.
2212	55	52.2K	331	272

Kidhome	Sum of Accepted_Past	Sum of Accepted_Last
0	209	219
1	61	110
2	2	2

Teenhome	Sum of Accepted_Past	Sum of Accepted_Last
0	144	235
1	121	91
2	7	5

Complain	Sum of Accepted_Past	Sum of Accepted_Last
0	272	328
1	0	3

Acceptance by No. of Catalog Purchases
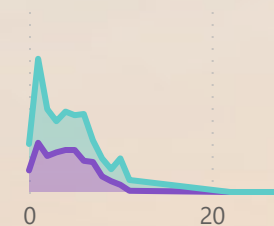
Acceptance by No. of Deal Purchases

Acceptance by No. of Store Purchases

Acceptance by No. of Web Purchases
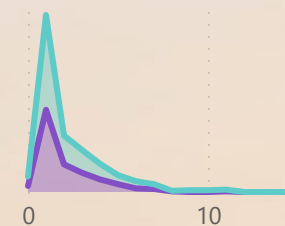
Acceptance by Marital Status

Marri... / Together / Single / Divorced / Widow
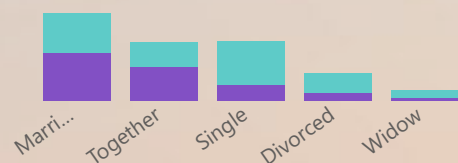
Acceptance by EnrollYear

2014 / 2013 / 2012
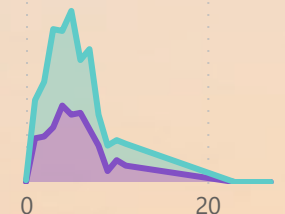
Acceptance by Education

Gradua... / PhD / Master / 2n Cycle / Basic

Acceptance by Age Group

41-60 / 61+ / 18-40
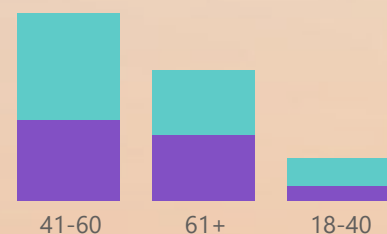
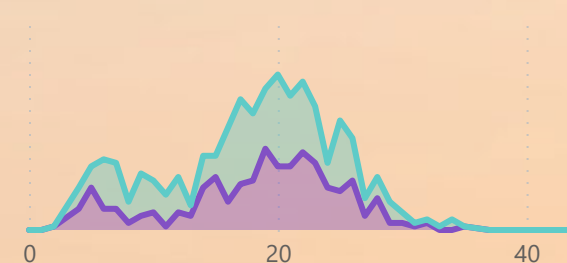## Acceptance by Web Visits Last Month
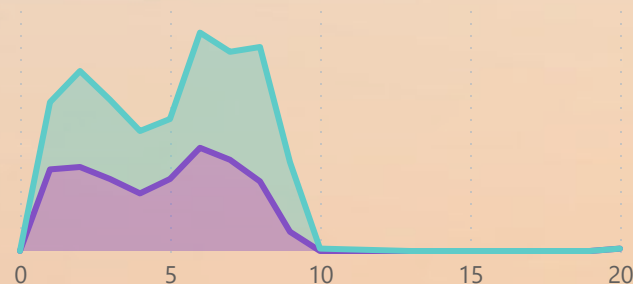
Acceptance by Total Purchases

Insights:

- Customers with high income ($50000+) are more likely to accept the offer.

- Married customers, single customers and those who are together tend to accept the offer more than divorced and widow customers.

- Offer acceptance rate is also higher in 2013-enrolled customers.

- In education, graduate customers are more likely to accept the offer, and customers with basic education accept significantly less, maybe because of product nature or the marketing/advertising not emphasizing enough on them.

- Middle age customers (41-60) accept the offer more often.

- The acceptance is high among customers with 0-10 web visits because there are hardly any customers who had visited the website more than 10 times.

- Customers who have bought 10+ catalog, deal or web purchases each do not accept offers as much, maybe because there is some issue with them, but the acceptance variation with the number of store purchases is more uniform.

- Customers with 0 or 1 kid and 0 or 1 teenager at home have high acceptance.

- As expected, customers who haven't complained tend to accept the offer more often.

Conclusion:

- Target **graduate**, **middle-aged (41-60), 2013-enrolled** customers who are **married/together/single** with **$50000+ income** and have **0 or 1 kid/teenager each** and **have not complained**.

- Also **look into customers with basic education** by way of marketing or understanding their needs, and **into the catalog, deal and web purchases**.