Churn Reduction for a Telecom Company

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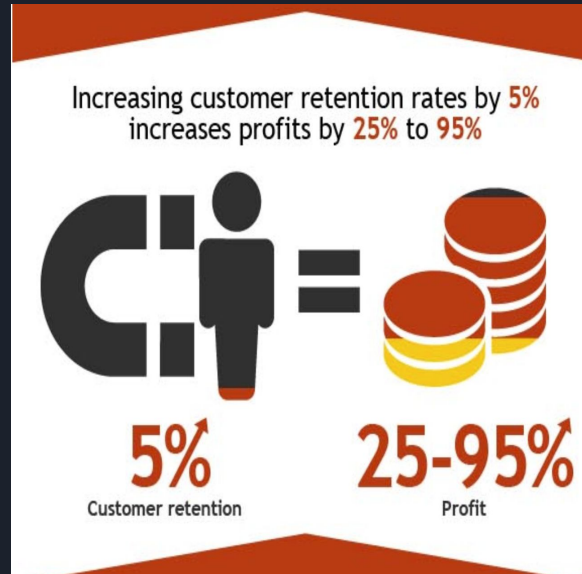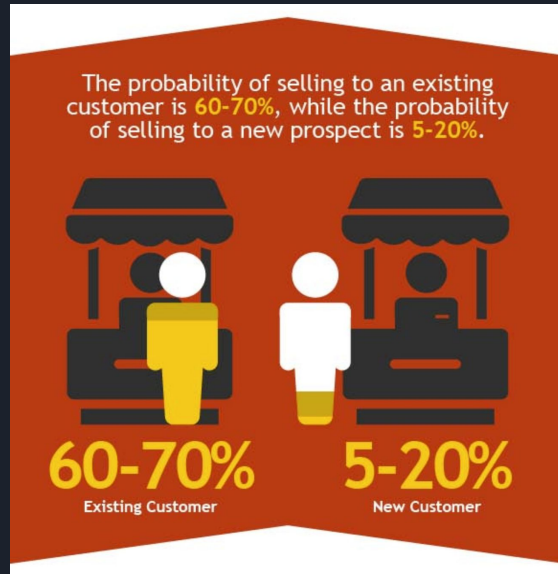- Conclusions and Action recommendations

Churn

Churn or customer attrition: is a business metric that shows customers that stopped doing business or stopped using a particular service with a company. When a customer churns it means a company has lost that customer.

Customer Acquisition vs Customer retention

Customer Acquisition refers to gaining new customers while customer retention refers to avoiding customers from churning.

The probability of selling to an existing customer is 60-70%, while the probability of selling to a new prospect is 5-20%.

60-70%
Existing Customer

5-20%
New Customer

Increasing customer retention rates by 5% increases profits by 25% to 95%

5%
Customer retention

25-95%
Profit

More than two-thirds (70%) of respondents agreed that it's cheaper to retain than acquire a customer

70%

Cheaper

Expensive

Data Exploratory Analysis (1)

Looking at the graphs below, we see that the numbers are almost the same but the numbers of people who churn are a little bit higher than those who do not churn. People who churn spent more minutes on average more than those who did not churn, they had more calls and even more international minutes.
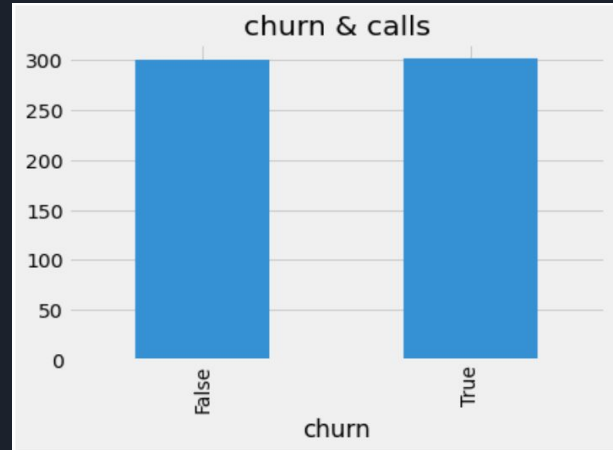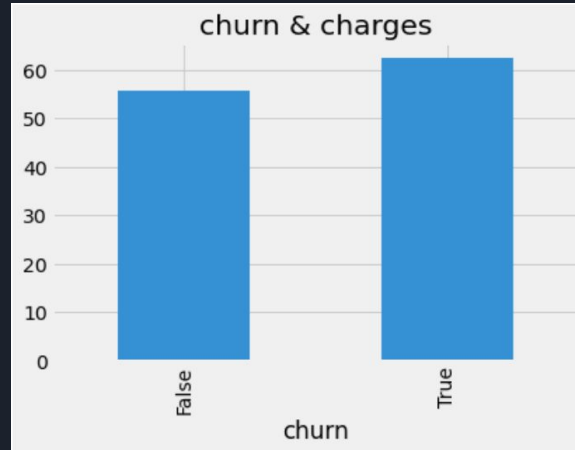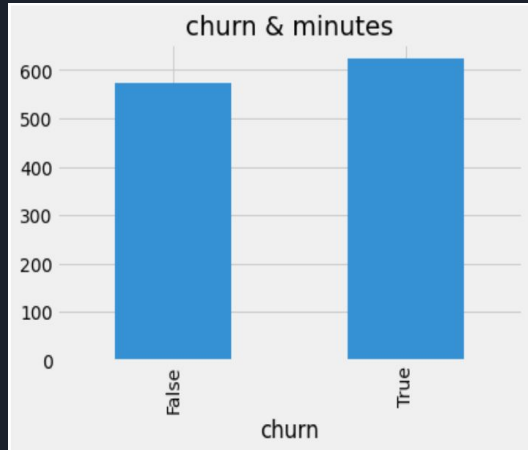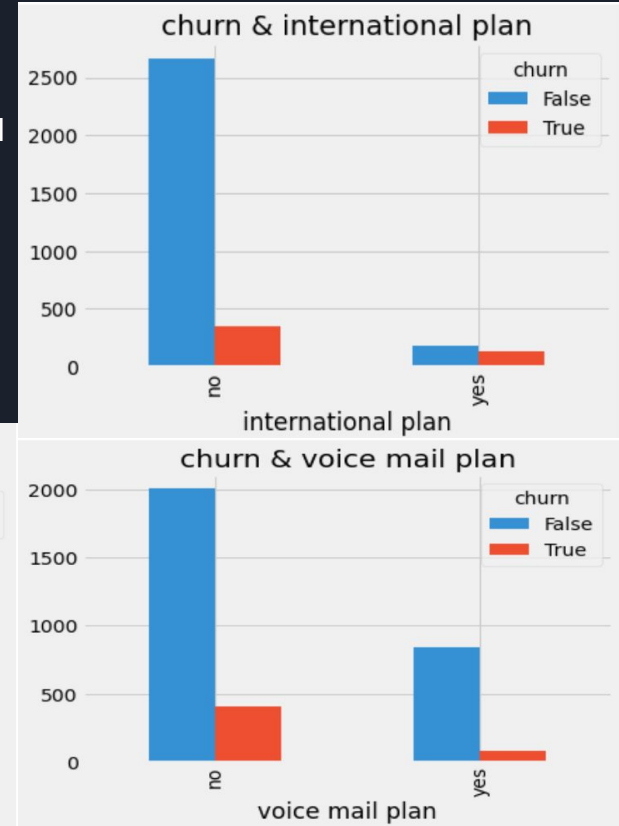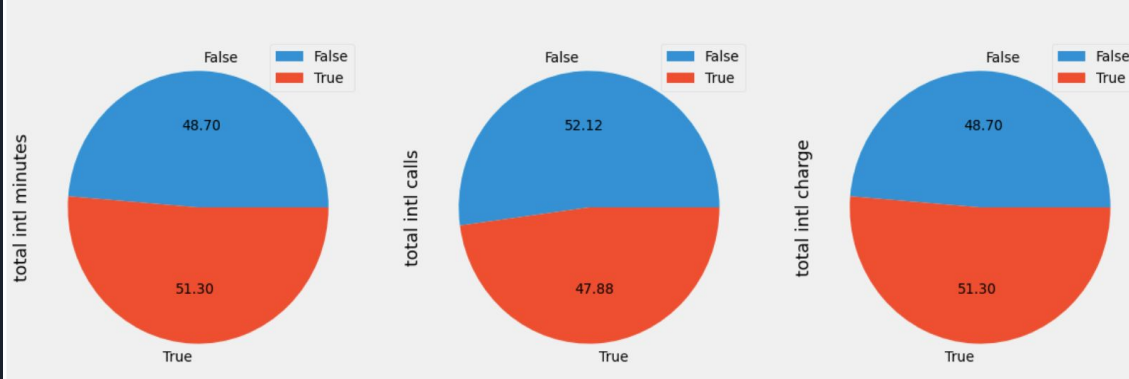
Data Exploratory Analysis (2)

The only time where people who do not churn has a bigger number is the total number of international calls by 52% of all calls.

Almost 15% of all lines churn, this affects people who did not churn to have more numbers in all these categories. For people that have International plans and voicemail plans, many of them do not churn.
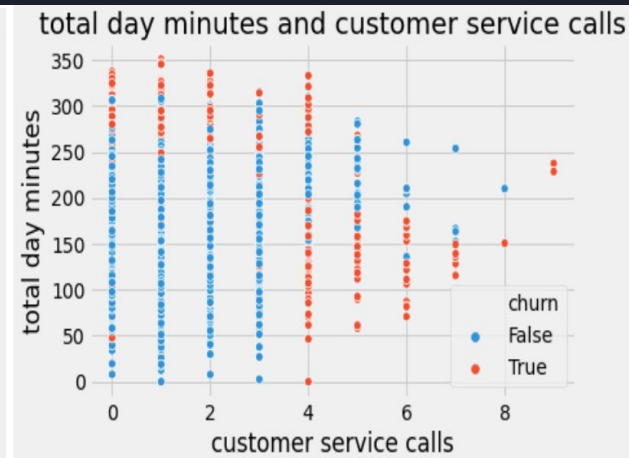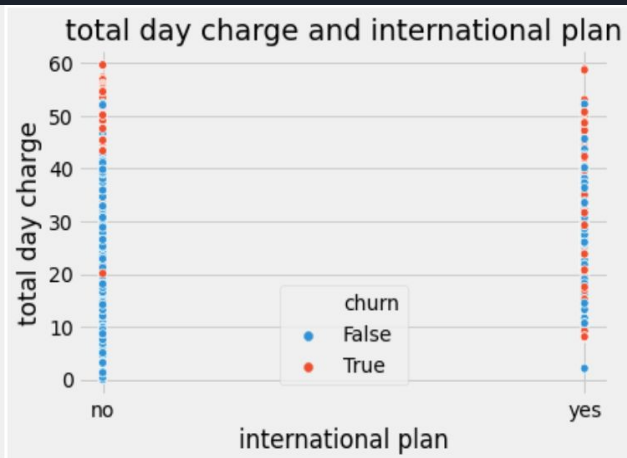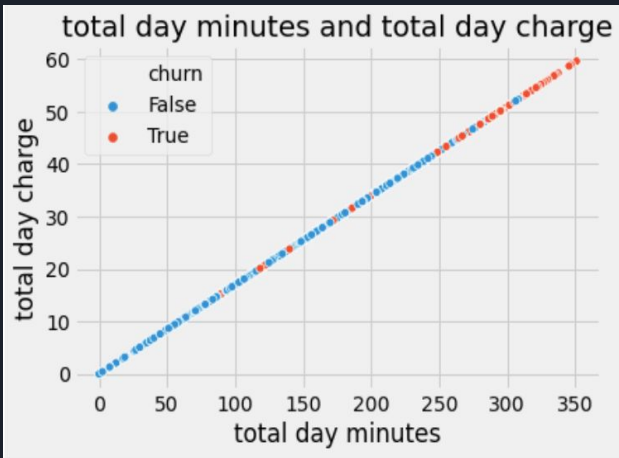
Feature Engineering, Processing and Feature importance

Before building a model we had to replace categorical features into numerical ones. After we have to set our target which the feature churn and then split the data into the training and testing data. By using the tpot library the best model was chosen (Extra Trees Classifier) and the most important features were selected.
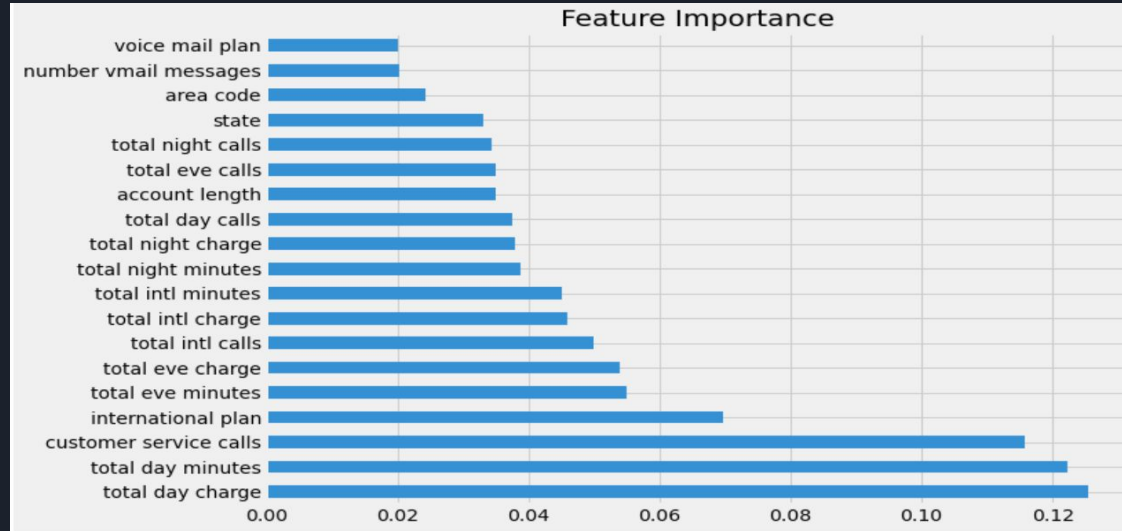
Conclusions and Action Recommendations

- Avoid more than 3 customer service calls per customer
- Resolve the root cause of people with international plans to churn or remove it
- Focus more on local plans and on states with a low churn rate.

THANK YOU