

CAN WE MINIMIZE CUSTOMER CHURN BY TAKING A DATA BASED APPROACH?

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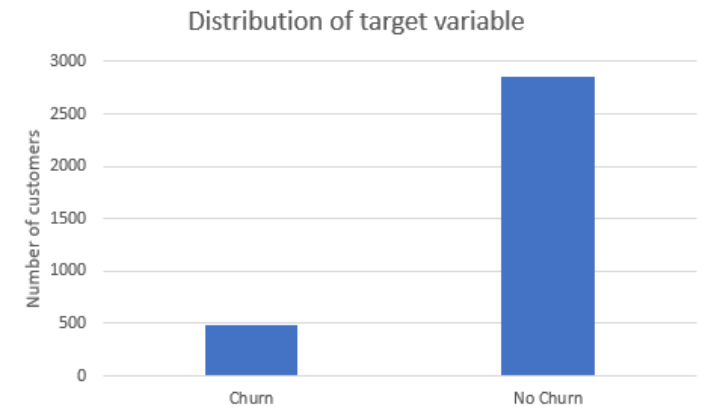
PRESENTED TO: SYRIATEL

Agenda

- ▶ Business problem
- ▶ Insights
- ▶ Recommendation
- ▶ Limitations
- ▶ Questions & Answer

How we can help you prevent customers from leaving

- ▶ The situation:
 - ▶ **15% of your customers churn**
 - ▶ Can we identify patterns and predict when customers leave?
 - ▶ Who do you offer discounts and other packages?
- ▶ The answer:
 - ▶ Yes – **we identified patterns** from your customer data
 - ▶ You will be able to **predict who is likely to leave** and who is likely to stay
 - ▶ You will be able to do **targeted actions** while not overspending



Which data did we look at and how do we use it?

Data

More than 3300 customers with the following attributes:

- ▶ **International Plan** (yes/no)
- ▶ **Voice Mail Plan** (yes/no)
- ▶ **Calls to Customer Service**
- ▶ **Total Minutes** (day, night, international)
- ▶ **Total Calls** (day, night, international)
- ▶ **Voice mail messages**

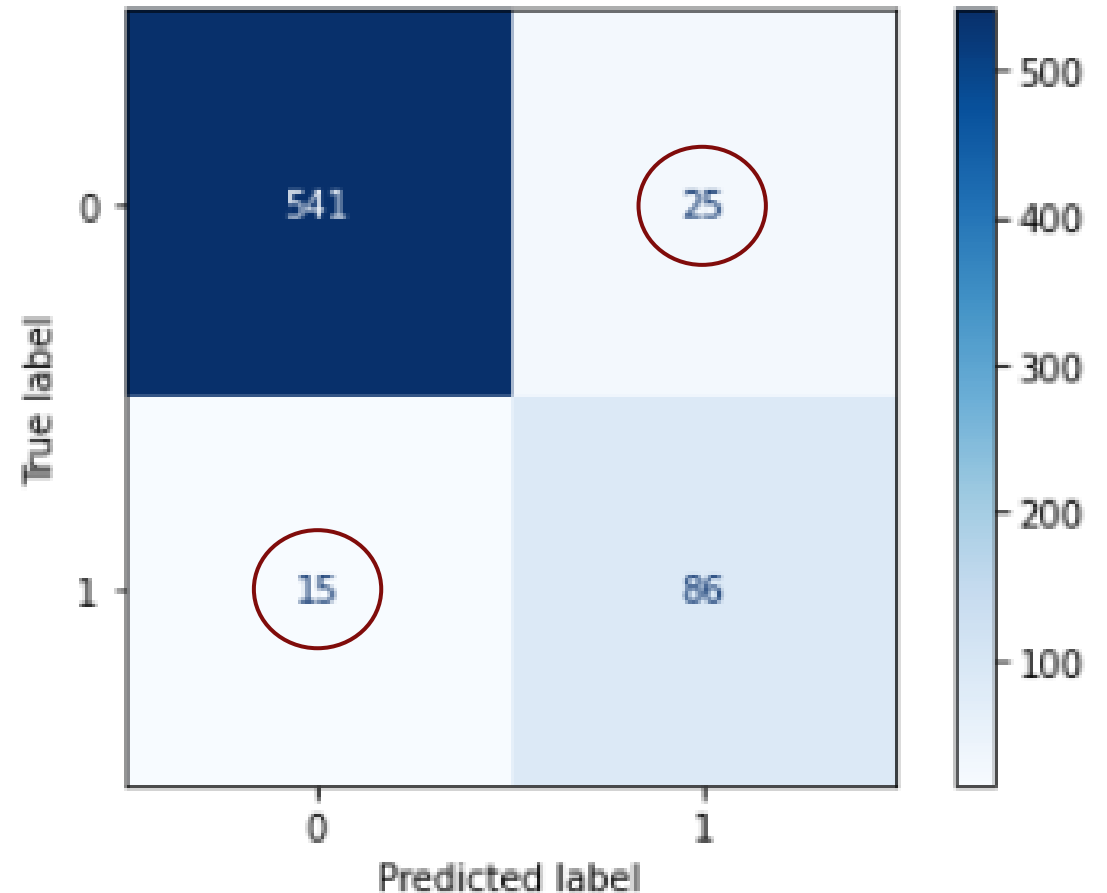
Method/approach

- Machine Learning models to correctly classify churning and not churning customers
- Iterative approach



The final model and its evaluation

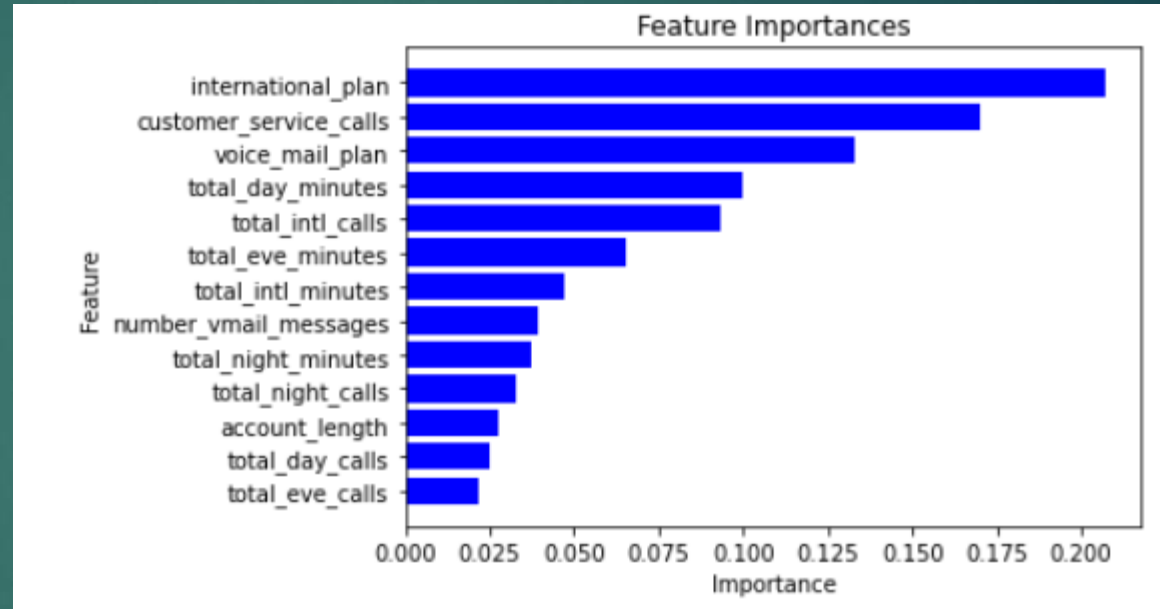
- ▶ XG Boost model(Tuned Parameters)
- ▶ Highest weighted Recall Score (0.95)
- ▶ For the whole customer base, our model correctly identifies 95% of all cases of customers who churn and who don't



Interpretation

Top 3 most important features are:

1. International Plan
2. Customer Service Calls
3. Voice Mail Plan



Recommendation

01

Offer discounts to customers with a high amount of customer service calls

02

Improve your customer service quality

03

Offer an attractive international plan to your customers

Limitations & next steps

Limitations:

1. Limited data set
2. Some churning customers will not be correctly identified
3. Some actually not churning customers will be offered

discounts

Next steps:

1. Gather more data
2. Collect more information about your customers
3. Re-evaluate different models

THANK YOU

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