



# UPGRAD TELECOM CHURN CASE STUDY

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## CONCLUSION FROM PCA

Model has 80% Accuracy 33 features can explain 90% variance in the dataset most imp features: arpu\_8,onnet\_mou\_8,offnet\_mou\_8,roam\_ic\_mou\_8,roam\_og\_mou\_8

## CONCLUSION FROM CONFUSION\_MATRIX

Model Accuracy is approx 79% Confusion matrix shows high false positive rate, which is not good



## CONCLUSION FROM DECISION TREE MODEL

1. 85% accuracy on the test dataset
2. lots of false positives in the confusion matrix

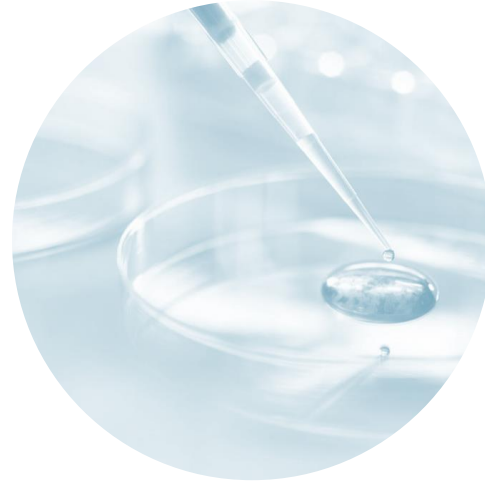
## CONCLUSION FROM RANDOM FOREST

Local Incoming for Month 8, Average Revenue Per Customer for Month 8 and Max Recharge Amount for Month 8 are the most important predictor variables to predict churn.



# CONCLUSION FROM THE CASE STUDY

- STD Outgoing Calls and Revenue Per Customer are strong indicators of Churn.
- Local Incoming and Outgoing Calls for 8th Month and average revenue in 8th month are the most important columns to predict churn.
- Customers with tenure less than 4 years are more likely to churn.
- Max Recharge Amount is a strong feature to predict churn.
- Random Forest produced the best prediction results followed by SVM.



THANK YOU

