# **Churn for Bank Customers**

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### **Milestone 3 – Q&A**

* What percentage of customers exited the bank?

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We can see that we have around 20% of the surveyed customers exited the bank.

* In what age bracket do most of the customers lie that leaves the bank?

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Description automatically generated

As we can see those customers with age between 50 and 60 exited the bank more than other age classes.

* Relationship between Gender and target variable?

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We can see that female customers leave the bank more than what male customers would do.

* Which country has the highest percentage of customers who exit the bank?

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We can see that customers from Germany exit the bank more than other countries.

* If customers have a credit card does that impact whether they exit the bank or not?

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We can see that having credit card does not impact target variable.

* If customers are active members, do they exit the bank more often than inactive members?

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We can see that customers who are not active members exit the bank more than active members.

* If a customer has multiple products, do they exit the bank than customers with less products?

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We can see that customers having more than two products exit the bank.

* Accuracy of the various models?
  + Logistic Regression 79.75
  + KNN 76.4
  + Support Vector Machine 57.85
  + Random Forest Classifier 85.4
  + Random Forest Classifier 86.6 (MinMaxScaler)
* What is the best predictive model that can be used for prediction of the target variable?

Random Forest Classifier with MinMaxScaler applied has the best accuracy and the confusion matrix, we choose that model and go ahead with implementation.

* Important Feature that determines if the customer would leave the bank or not?

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We can see that Age has the most feature importance.