**About the Problem**

The bank conducted a bold experiment three years ago: for a single day, it quietly issued a credit card to everyone who applied regardless of their credit risk. After 3 years 25% of customer found defaulted. I have to built an appropriate model that will able to predict future default customer.

* For the classification problem, We need data with binary classification

Divide the data in two part train and test

* **Choose appropriate Binary classification Model**
* **Train & Build Model**

* **Test Model on test data**
* **Prediction**

* **Performence**

* **Learning Points from Final Project:**
* This project requires me to develop own binary classification model for credit card default, using a “Training Set” of 200 applicants, and then to test your model for over-­‐fitting on “Test Set” of an additional 200 applicants.
* **The Area Under the Curve (AUC**) performance metric is threshold-­‐independent, which makes it the best measure of the effectiveness of a binary classification model whenever the cost per False Negative classification and cost per False Positive classification are not known. I have to design my model to maximize “sustainable” AUC: AUC that does not fall significantly from the Training Set to the Test Set.
* In general, models with “too good to be true” AUC on a Training Set will perform much less well on new data. If your model had a dramatically lower AUC on new data, you should go back and redesign it. It is better to have a model with lower AUC that is consistent across both data sets – it is more likely to have robust performance with new applicants.



