**Recruitment Case Study**

One of the goals of our team is to understand customer behaviour and provide the right message at the right time to the right customer. To do this we try to understand how different customer segments behave and what they are likely to do next. This mandate requires a set of skills ranging from data cleaning, data manipulation, predictive modelling, data visualisation and the ability to articulate key messages to a Business audience.

Please note that the case study has been tested however as in real life this data is not necessarily clean.

This case study has 2 main components

1. **Business Intelligence**
   * Using the data provided answer the following BI QUESTIONS:
     + How Many Customers above 50 years old have taken up a loan?
     + How Many Females aged 30 to 40 have more than 2 products?
     + What is the average number of Current Account(CA) Transactions for males who had a previous Loans
     + How many females did not have a previous loans and who are aged
       - Less than 20
       - 21 to 40
       - 40+
2. **Predictive Modelling**
   * The end goal is to create a predictive model allowing you to identify customers more likely to take on a loan
   * Emphasis will also be given to
     + your ability to present the results and business benefits to engage a business audience
     + Data manipulation and cleaning
     + Application of your model to the test sample
   * We have kept an hold out sample, the quality of your work will be partly based on the hit rate you have been able to achieve based on your prediction
     + You will need to build the Test sample using the TEST\_\*.CSV files
     + The only thing missing is the loan flag
     + You will still be able to score those 2000 Individuals and put them into 5 groups
       - Very High Likelihood
       - High Likelihood
       - Medium Likelihood
       - Low Likelihood
       - Very Low Likelihood
     + For each group define what you expect the loan uptake rate (%) to be
     + You will need to define optimum size of High and Very High likelihood group based on business relevance
     + This code needs to be provided 12 hours ahead of the interview

Additional points will be awarded to those who go above and beyond the minimum required to achieve section 2 above.

The outputs to be provided are 1) A presentation of your results 2) Your code