

NED Data Science Case Study & Technical Test

Introduction & Objective:

NE Digital - Our Centre of Excellence for Data, Digitalisation, and Technology was set up to lead the transformation of the NTUC Enterprise by leveraging digital technologies to become more nimble, adaptable, and innovative in today's digital age.

One of our biggest challenges is how we link the customers to the right product for the right offer at right time. We will identify patterns and build predictive models that help to interpret and predict the behaviors of different customer segments to drive revenue growth.

You are now given two hours to work on the following coding assignment on the marketing problem.

Dataset:

You will be given the public dataset from UCI Machine learning repository about the marketing <https://archive.ics.uci.edu/ml/datasets/bank+marketing> which is trying to predict if the client will subscribe (yes/no) a term deposit (variable y)

Questions:

- 1) Give us your suggestion on how you would make the data better/more useful (E.g. how to do feature engineering and how features could be enhanced with domain knowledge) and get any actionable business insight for it? 2) With the dataset, could you come up with a scientific approach for analysis/modeling? (e.g. How you conduct a modeling/design experiment and testing. How to evaluate your work with your chosen dataset. You need to explain why you choose this approach and the evaluation metrics)

Instructions upon completion of the test

Please write your algorithm in a text file, and email the text file and all source codes to us.