

Dear Participant,

We welcome you all to the case-based project of this course. This project has 2 case studies. The first case study (described below - 30 points) covers concepts taught in Part 1 (the first 8 hours of Neural networks basics).

1st case study - Project 1:

The case study is from an open-source dataset from Kaggle.

Link to the Kaggle project site:

<https://www.kaggle.com/barelydedicated/bank-customer-churn-modeling>

Given a Bank customer, can we build a classifier that can determine whether they will leave or not using Neural networks?

Case file:

[bank.csv](#) 

The points distribution for this case is as follows:

1. Read the dataset
2. Drop the columns which are unique for all users like IDs (2.5 points)
3. Distinguish the feature and target set (2.5 points)
4. Divide the data set into train and test sets
5. Normalize the train and test data (2.5 points)
6. Initialize & build the model (10 points)
7. Optimize the model (5 points)
9. Predict the results using 0.5 as a threshold (5 points)
10. Print the Accuracy score and confusion matrix (2.5 points)

Regards

Program Office