

Task 5P

Solve the following set of problems using Python and submit the code file with extension .ipynb.

The data is related to direct marketing campaigns (phone calls) of a Portuguese banking institution. The classification goal is to predict if the client will subscribe to a term deposit (variable y).

1. Load "[bank-full.csv](#)" dataset and create a logistic regression model for predicting target variable (subscribed a term deposit or not). Use appropriate evaluation methods and report the performance of the model using appropriate metrics.
2. Have you used any hyperparameter tuning while building the model in Q1? If yes, then plot the performances that were obtained at different steps of optimisation. Otherwise, create an optimised model and compare performance with Q1.
3. Create two ensemble ML models for predicting the target variable using the evaluation setting that you have used in Q1 and report the performance.
4. Compare the performance of the three models (Q1 and Q3), explain which model is good and why.

Assessment feedback

The results with comments will be released within 5 business days from the due date.

Referencing

You must correctly use the IEEE method in this assessment. See the [referencing guide](#).

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