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Problem Description

ABC bank is preparing to introduce a new product, a term deposit. As part of their preparations, they are developing a model to help them understand whether a particular customer is likely to purchase their product based on their past interactions with the bank or other financial institutions. They have provided us with a dataset of client information and related features in CSV format ("bank-additional-full.csv").

Github Repo link

https://github.com/felincre/Bank-\_Marketing\_Campaign

Final recommendation

We have used the pycaret library to determine which model would perform best in our business problem. To do this, we employed pycaret.classification on three different datasets, which were preprocessed using three methods: KNN imputation, dropping all missing values, and treating "Unknown" as a separate category.

We found that the third dataset, which did not involve deleting valuable information, produced the best results based on AUC. As a result, we plan to focus on the two best-performing models, namely Light Gradient Boosting Machine and CatBoost Classifier, and optimize their hyperparameters using Grid Search next week.