Bank Marketing Campaign Prediction

Classification Models

Today's agenda

- Project overview
- Business Problem
- Data
- Methodology
- Analysis
- Results
- Conclusion
- Recommendations
- Next Step

Project overview

This project focuses on building a classification model on a bank campaign dataset to predict how many will place term deposit in their bank.

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This project focuses on building a classification model on a bank campaign dataset to predict how many customers will place term deposits in their bank.

Business Problem

The Portuguese banking organization has conducted a bank marketing campaign to all the customers through phone calls to place a term deposit. Now the organization needs help to know if a customer would place a term deposit or not.

Data

It is a UCI dataset that describing Portugal bank marketing campaign results. It consists of around 41k bank customer information.

APPROACH

1. OBTAIN
2. SCRUB
3. EXPLORE
4. MODEL
5. INTERPRET

Analysis

Feature Analysis

Age

Job

Marital

Education

Loan

Housing

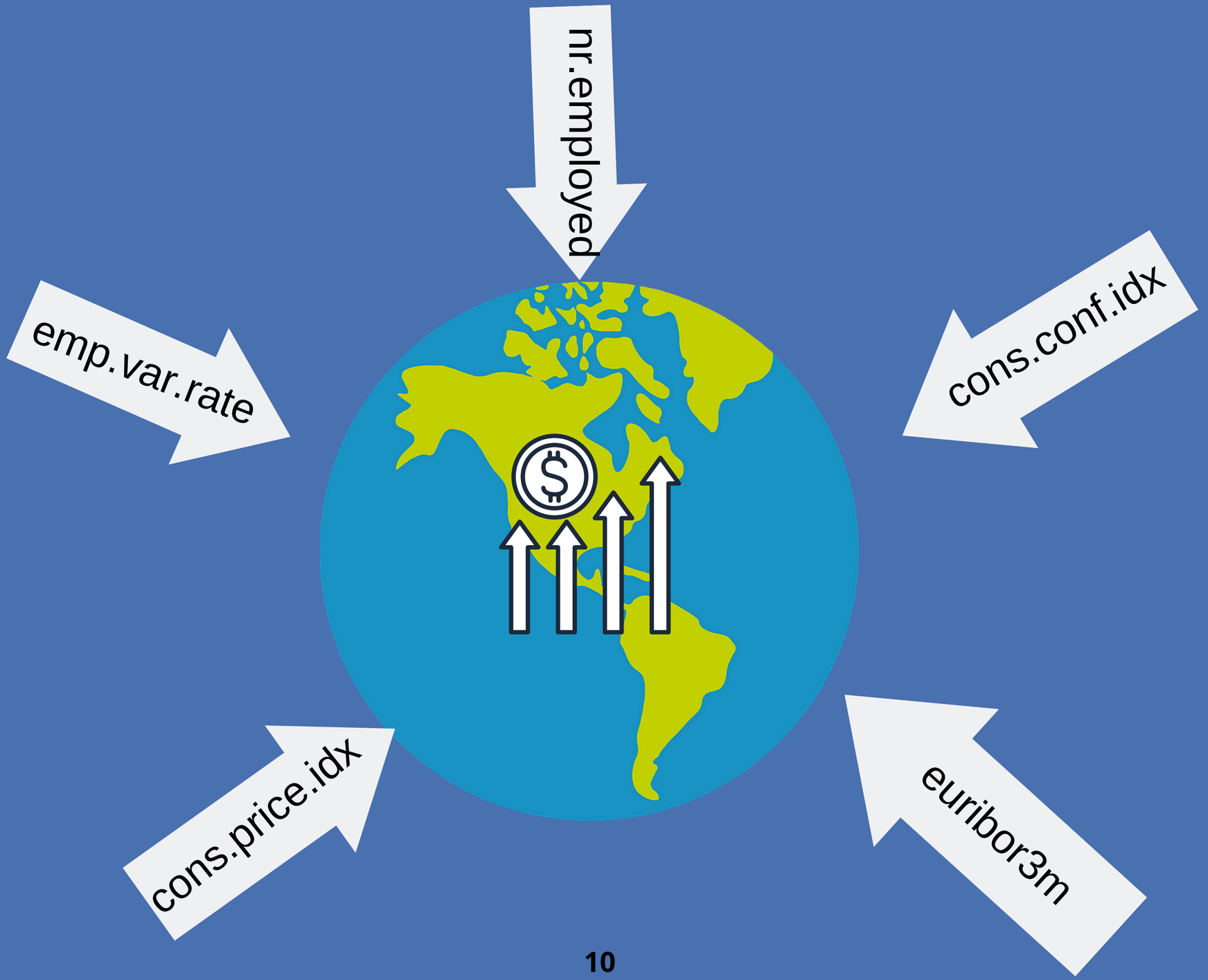
Contact

Poutcome

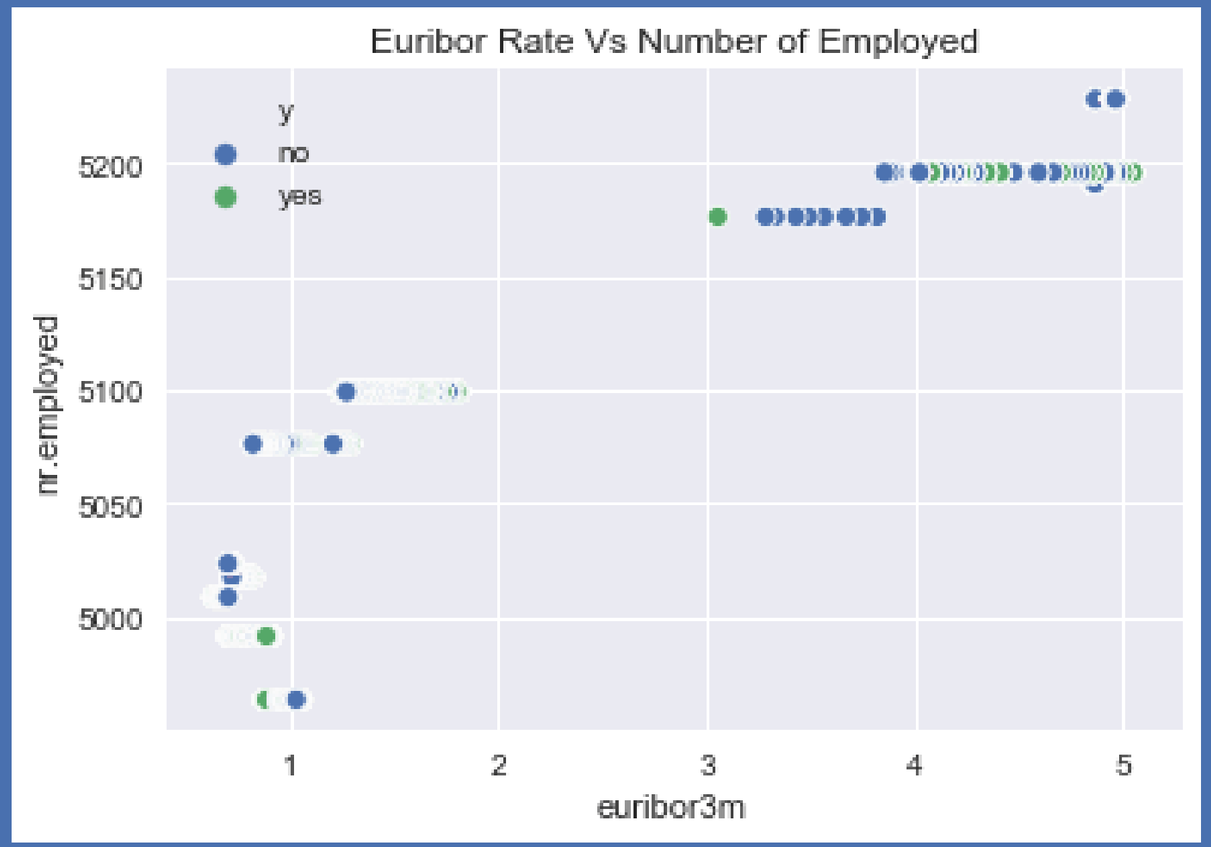
Month

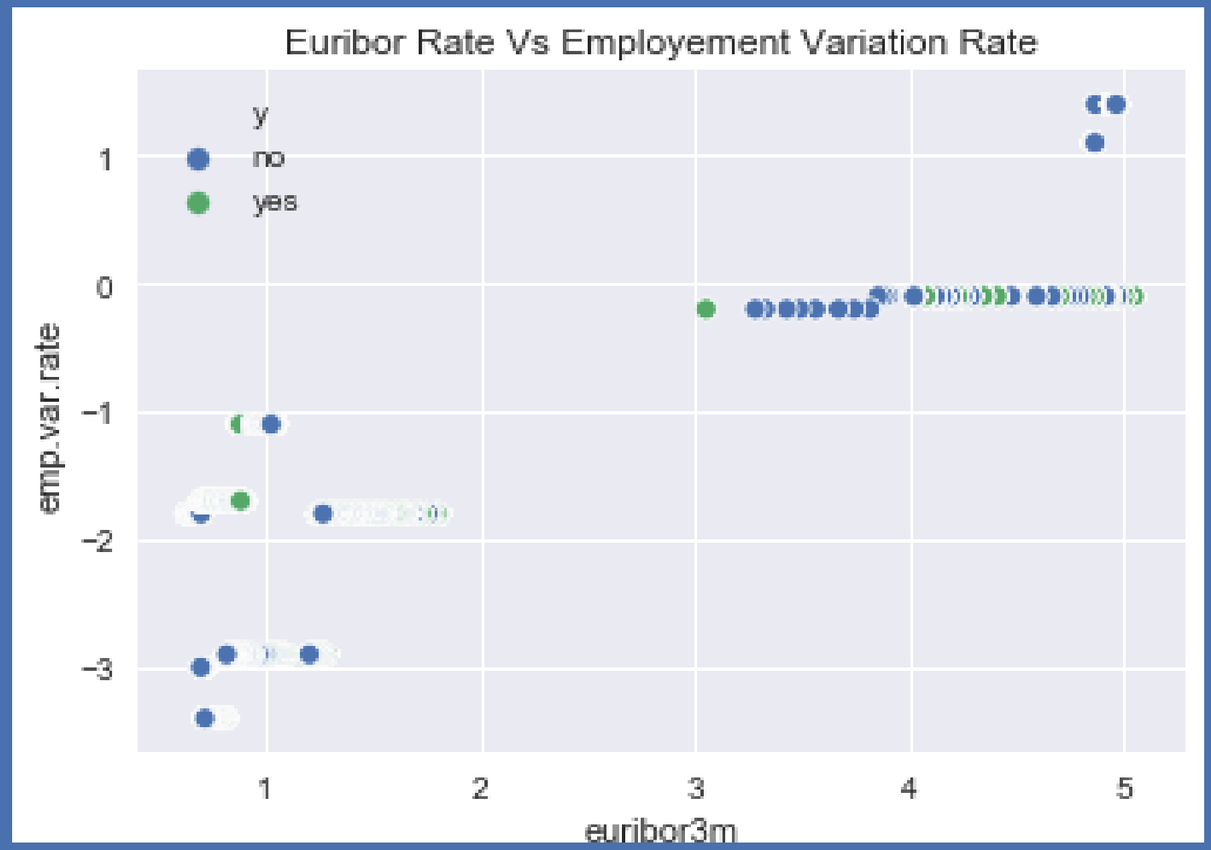
Duration

Campaign

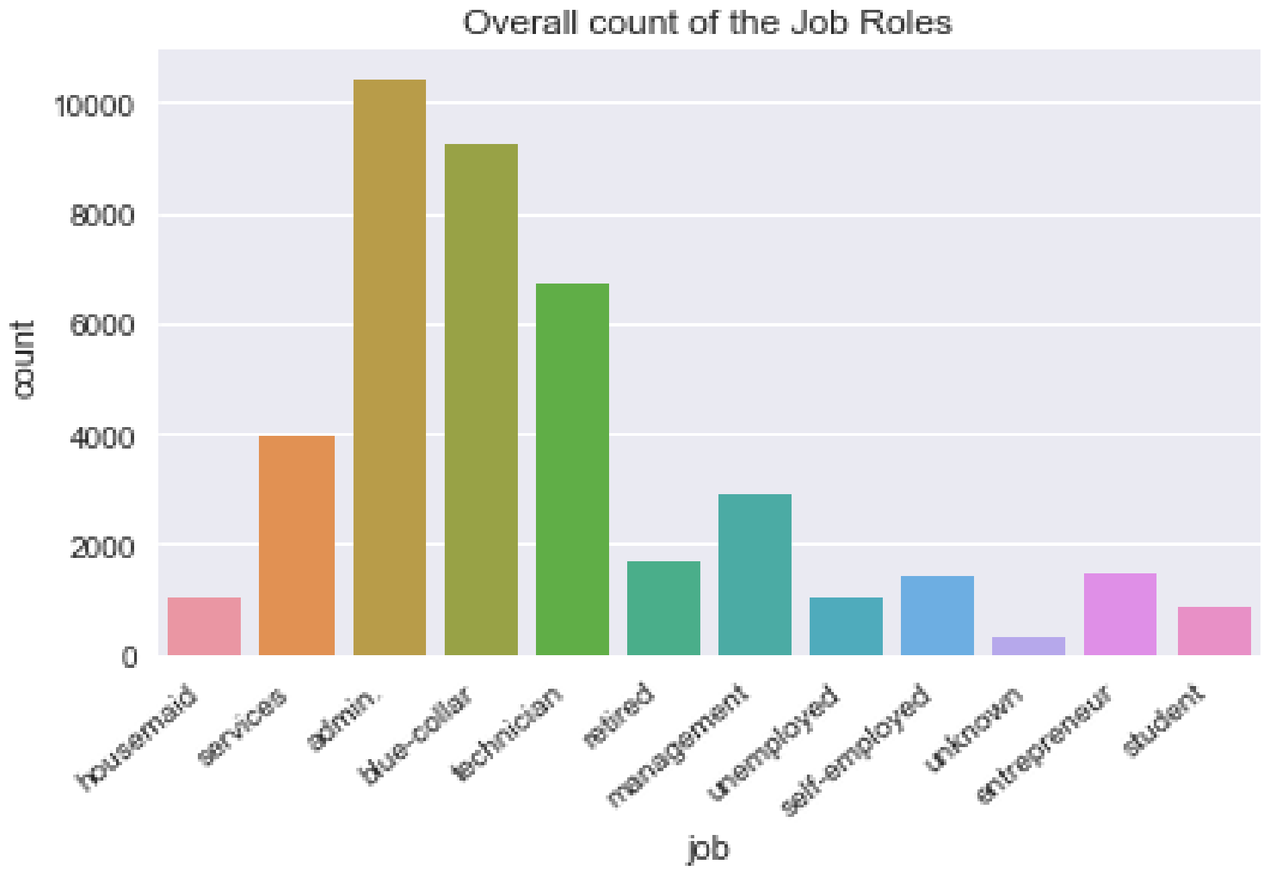

nr.employed
emp.var.rate
cons.conf.idx
cons.price.idx
euribor3m

Duration seems to be an important feature in the dataset

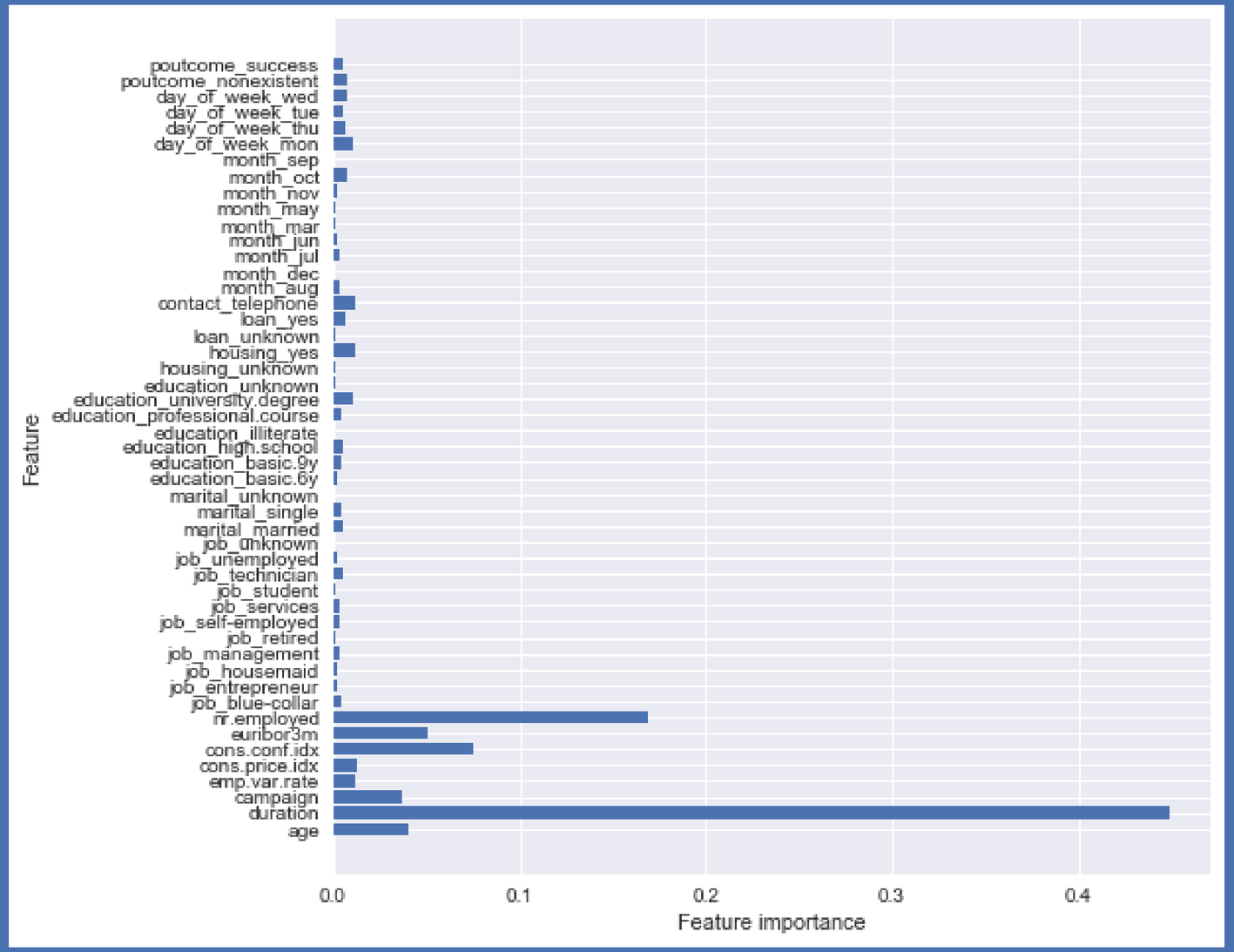




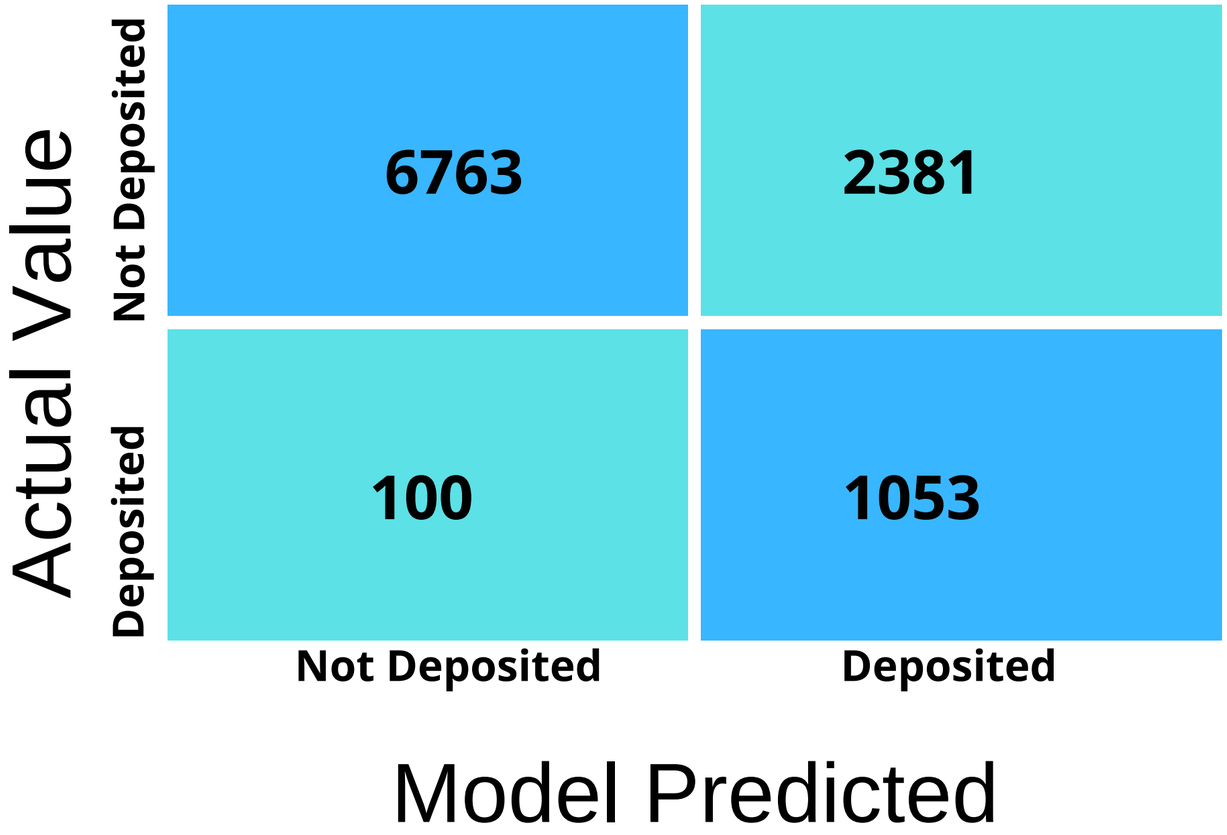
State of country's economy has a huge impact on the customers



Admin roles, Blue-collar jobs and technicians are targeted more in the campaign



Model prediction on feature importance



Count of true deposit made by the customer and how our model predicted it correctly.

Conclusion

- Duration of the call
- Customer's job role
- Model can be used for prediction

Recommendation

- Conducting campaign at the right time
- Targeted Customers
- Education background

Next Step

- Analysis the pros and cons of the campaign
- To build more stable model to reduce false negative rate

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