TERM DEPOSIT CASE STUDY

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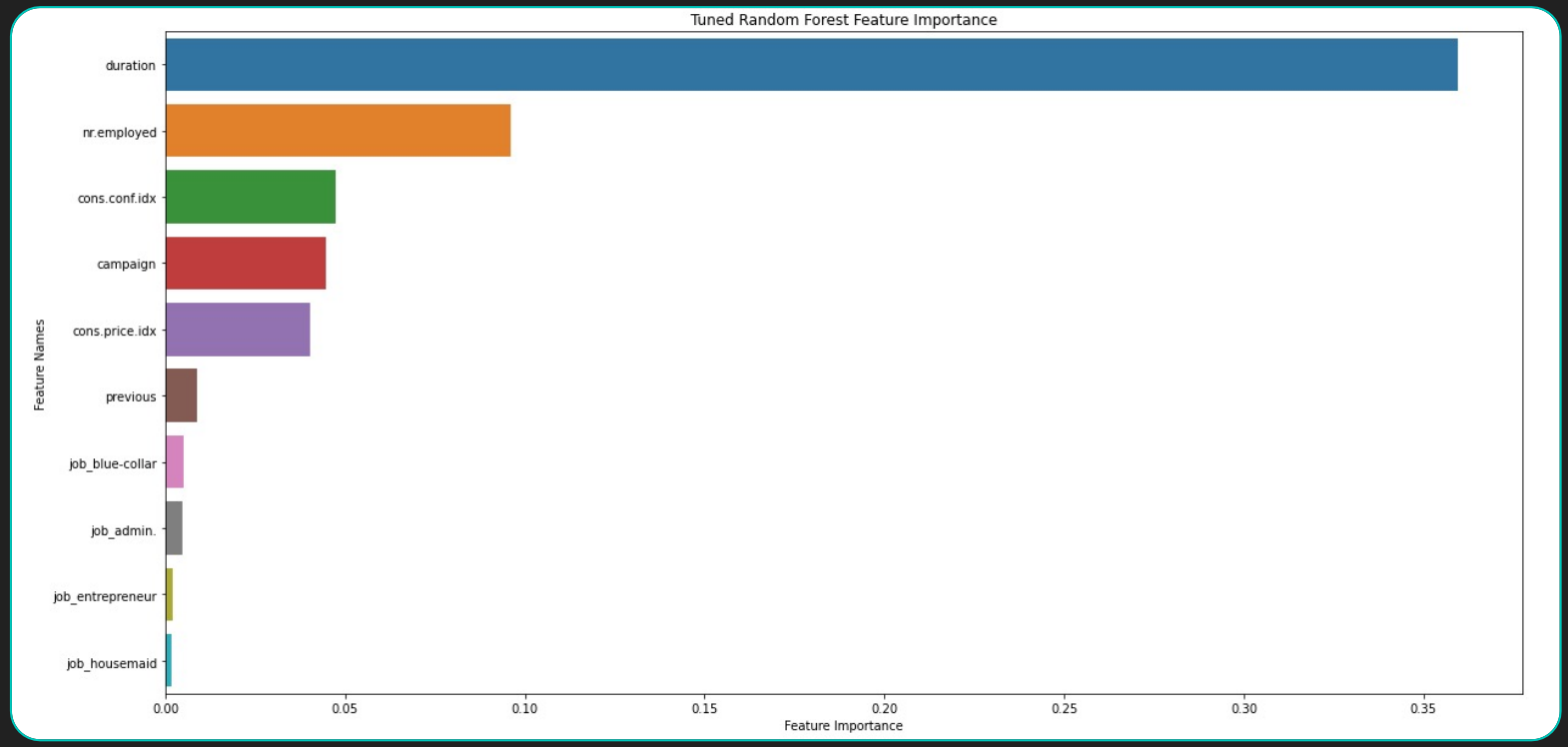
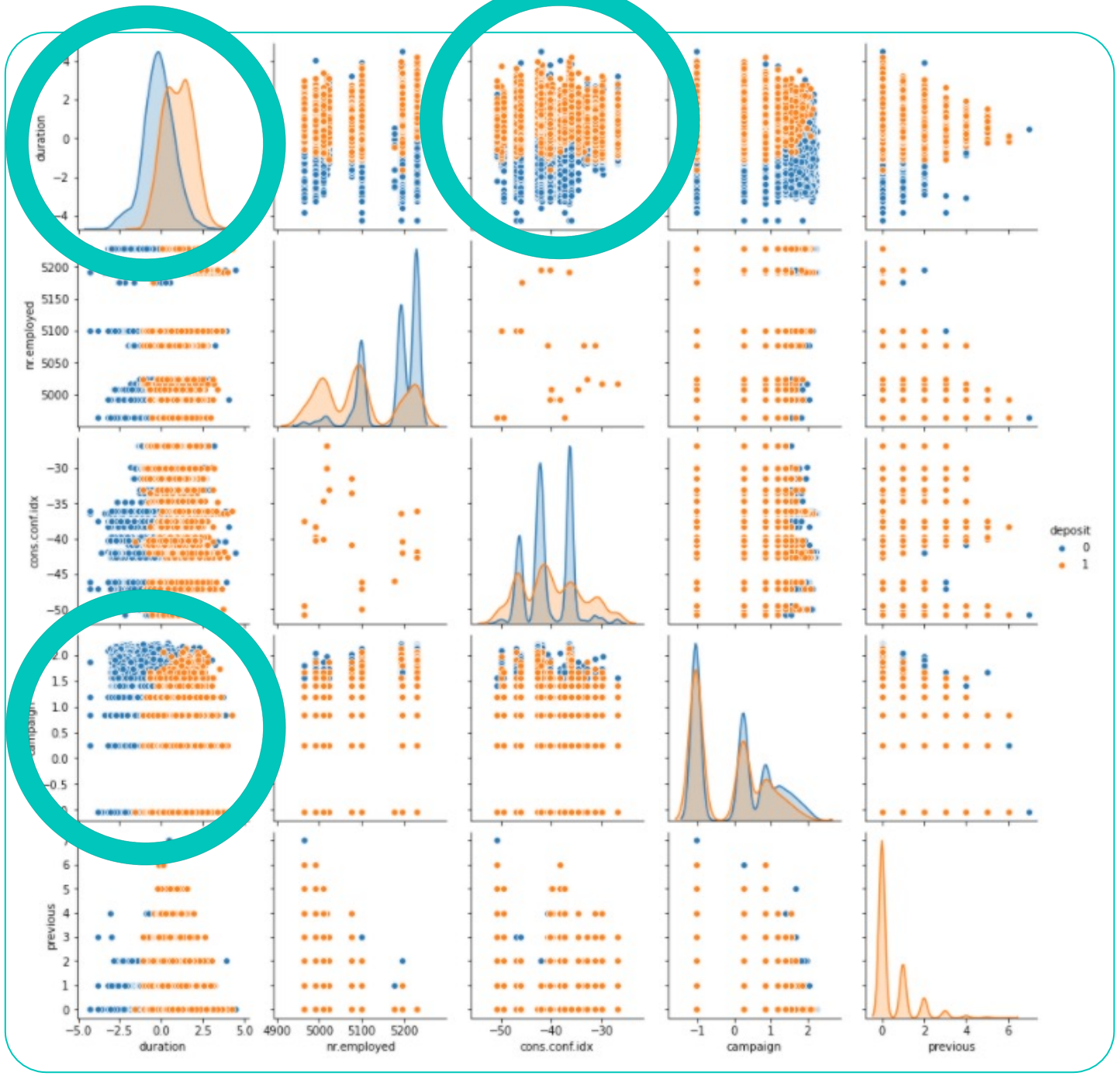
How do we improve our chances of finding the right customer?

- ML models Suggest that Number of Employees(Quarterly indicator), Duration of Calls, Education, and Month of contact are some of the important features that determine the success of subscription to term deposits





We want the red ones

Ideal Customer

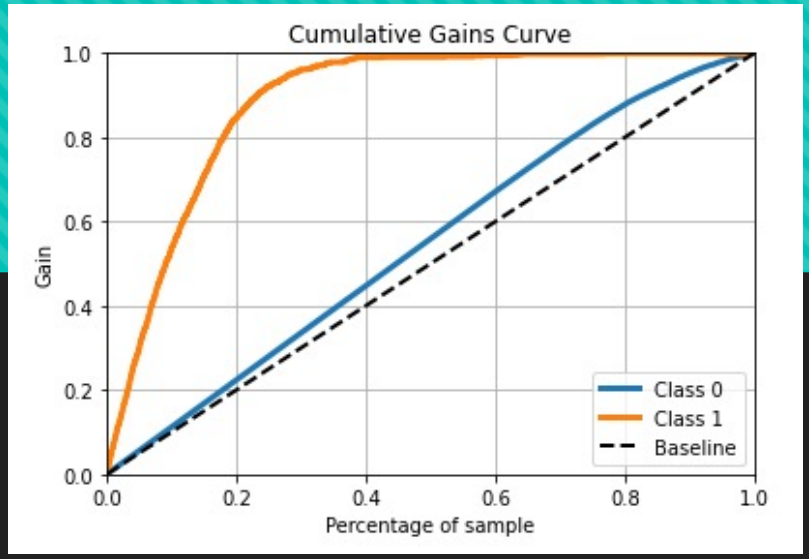
- People who participated or contacted in past campaigns
- People who spent more time on calls with us
- Quarter with more consumer confidence, low price index and high employment rate at regional level
- Customers with Blue collar, admin, entrepreneur and housemaid jobs
- From Data Analysis, customers who are either Old, or Yong tend to have high conversion rates, and this goes hand in hand with the Job type as well. Students and retired people have high conversion rates

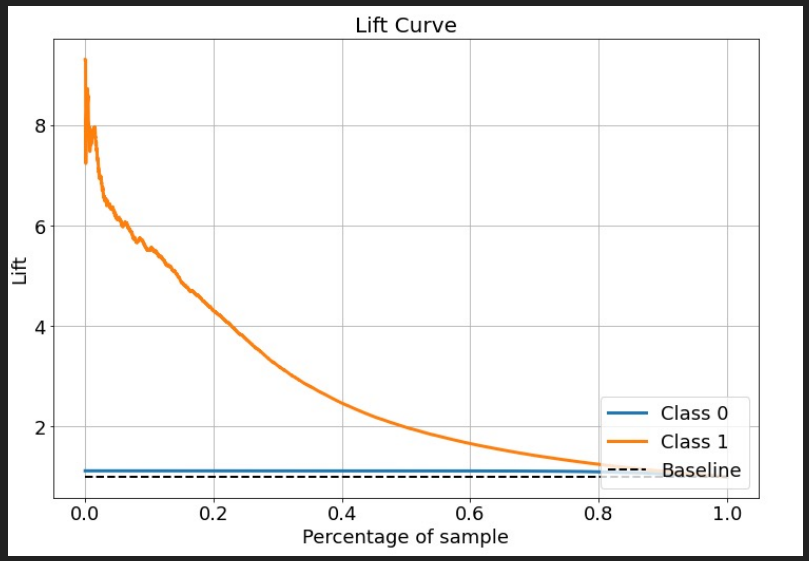
→ **Indicates easy to separate the classes**

Why choose the ML way

Lift indicates how much better the model does compared to the existing process. For example, if you randomly call customers, you have 11% success rate, but instead if you just call 20% of customers that the model suggests, you will have 4.5 times the current result and that puts us at 50% success.

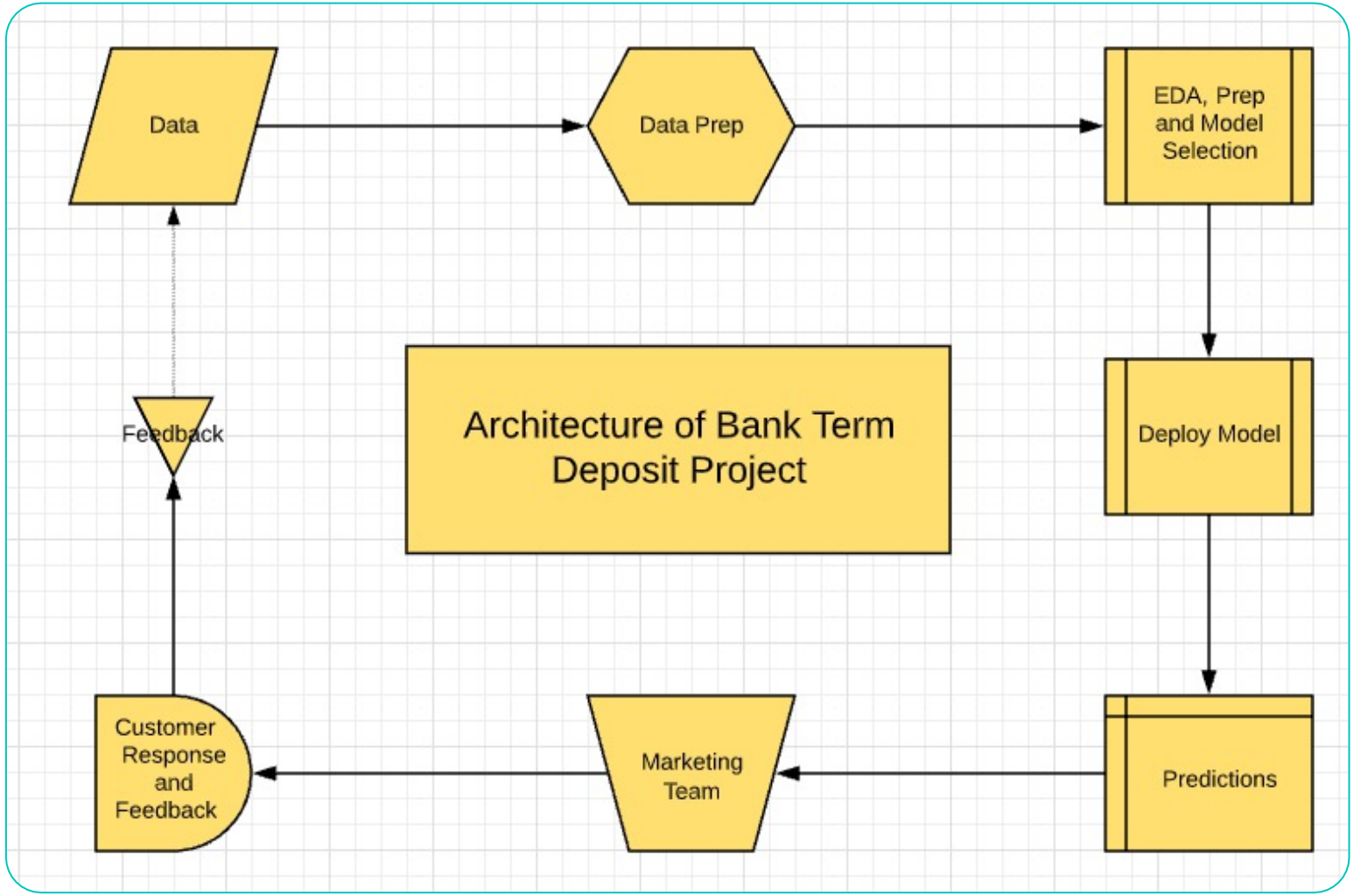
In marketing words, conversion rate is 50% for those 20% of people. Since the model is providing the top customers who are more likely to subscribe, the call center team can focus on other customers

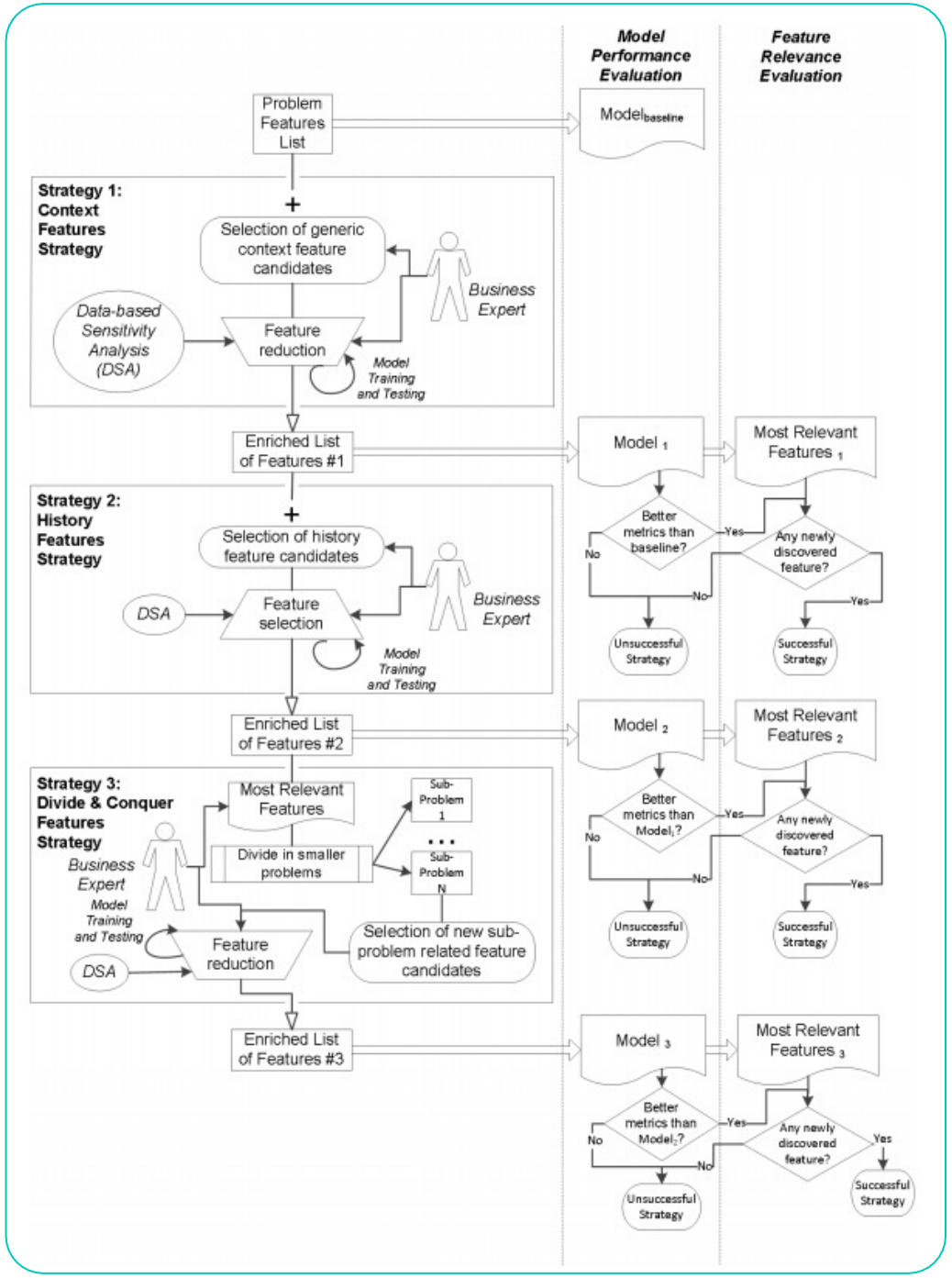




Future of implementation

- Implementation can be done in stages as represented in one of the white papers, and get more data in future to improve the conversion rate
- We need data on purchase behavior, review ratings, customer loyalty, customer lifetime value, sales, profit, and brand visibility for identifying our ideal customers





Further Work

Following the architecture mentioned in this paper will be helpful in getting better returns and increase the conversion rate for the bank.

S. Moro, P. Cortez, and P. Rita, "A framework for increasing the value of predictive data-driven models by enriching problem domain characterization with novel features," Neural Computing and Applications, vol. 28, no. 6, pp. 1515–1523, 2017.