XS

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VIRTUAL ASSISTANT

MACHINE LEARNING FOR MARKETING

CONTEXT

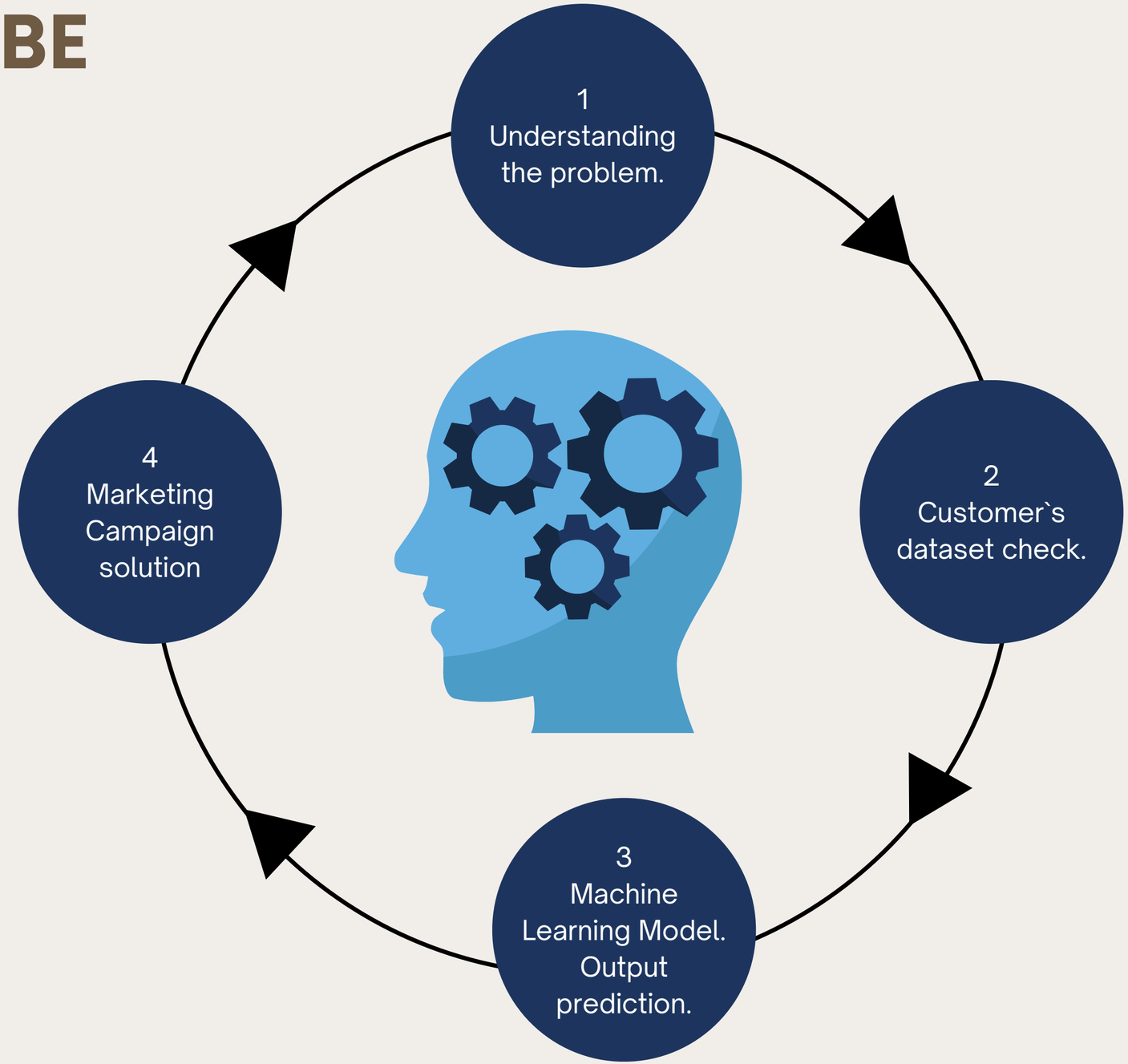
A company based in the UK has the goal of predicting the most probable buyers from a database consisting on 88900 participants.

The company has sent kit samples to the 5% of the customers (4445 participants) to get a small feedback.

With objective of optimizing profitability & market penetration, given:

- Revenue from a successful buyer = 163 $
- Cost of promotional sample kit = 52 $

STEPS TO BE TAKEN



DATABASE

The database will include the following information about the customers:

- Customer ID.
- Affluence grade.
- Age.
- Cluster Group.
- Gender.
- Region.
- TV region.
- Loyal Class.
- Spends.
- Loyal Time.
- Target

MACHINE LEARNING MODEL

Data preparation

- Missing values were input as mean
- Label encoding

Building the Machine Learning model.

- Used Logistic Regression classifier.
- The goal is to predict if a customer will buy the sample or not.
- The accuracy of the model achieved is of 81%

STRATEGIC MARKETING OPTIONS

	Strategic option	Participants covered	% ac. Good to ac. Total	% Total buyers reached	% Total non buyers avoided	Prob. Threshold	Profit ($)
No model scenario	100%	88900	24%	100%	0	0	-1108520
Market penetration TOP 30%	Top 30%	26670	51%	63%	80 %	31%	809880
Profit maximization	Top 20%	17780	61%	51%	90%	40%	852140