

Which topic did you choose to apply the data science methodology to? (2 marks)

I have choose the topic 'Credit card' because I am much interested to understand how the credit card are provided on which basis to user though I have some what knowledge about it I have to understand how we can apply this to the perspective of data science.

Using the topic that you selected, complete the Business Understanding stage by coming up with a problem that you would like to solve and phrasing it in the form of a question that you will use data to answer. (3 marks)

You are required to:

- 1. Describe the problem, related to the topic you selected.**
- 2. Phrase the problem as a question to be answered using data.**

We all know the banks provide the credit cards to users that they can expense first and then at the end. But if the case is if user do not pay the amount the bank may go into loss. So banks before providing the credit cards they research on user and if they ae feasible to return amount then they provide the credit card

Our Question is : "Can we automatically decide if client is suitable to provide credit card from bank."

Briefly explain how you would complete each of the following stages for the problem that you described in the Business Understanding stage, so that you are ultimately able to answer the question that you came up with. (5 marks):

- 1. Analytical Approach:** we can see that the answer will be in YES/NO so we can use classification model for following business problem.
- 2. Data Requirement:** The data should include personal data of the client and should include the ones that defaulted and the one that paid.
- 3. Data Collection:** we would use descriptive statistics and data evaluation to make sure we have useful data for the model.
- 4. Data Understanding and Preparation:** In this step we need to evaluate the different variables of our data in order to understand it better. For example, we would calculate

univariate statistics, such as mean or median and the correlation between variables.

So, we need to evaluate the quality of the data. In the data preparation phase, we have to prepare the data in an specific way depending on the model.

- 5. Modelling and Evaluation:** Lastly we create classification model to evaluate and come with output and perform the corresponding change until we get required model