

Using the Credit Card Pay Date to Determine the Customer Behavior

Next, you will play the role of the client and the data scientist.

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 points)**

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.

For example, using the food recipes use case discussed in the labs, the question that we defined was, "Can we automatically determine the cuisine of a given dish based on its ingredients?".

The described question is, "Can we approximately define the reason of why the customer choose to pay on a determined data?" Using a database that contains credit card payment data as well as anonymous customer data.

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 points):**

1. Analytic Approach
2. Data Requirements
3. Data Collection
4. Data Understanding and Preparation
5. Modeling and Evaluation

You can always refer to the labs as a reference with describing how you would complete each stage for your problem.

1. Analytic Approach

When do clients decide to complete their payments?

Is it connected to any holidays, such as paycheck deposits?

Does the client make the payment right before the deadline, or does it arrive earlier?

2. Data Requirements

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Choosing whether to include someone with a high, average, or low credit limit is one example. If we consider those who have held their credit card for a short or extended period of time is another topic.

3. Data Collection

Combine the information gathered from several sources and ensure its accuracy through validation. similar to retaining or removing null or missing data. Also, deciding if further data is required.

4. Data Understanding and Preparation

For instance, determining if the data is representative of the credit card-using population that we wish to understand while also considering if the data we have acquired is accurate and required to address the stated query.

5. Modeling and Evaluation

In this instance, a descriptive model would be the most appropriate as our goal is to comprehend the actual patterns of regular customers.

We assess if a portion of the model was deployed in the manner intended for it to function. For instance, we could become aware of bias in the data or features that we are not interested in when creating histograms.

To come closer to fixing the issue, improve the database or reword the inquiry. Determine whether the model needs to be modified and whether there have been any process problems.