Analyzing Credit Usage and Repayment of Customers

OVERVIEW

In this case study, we will analyze the credit dataset via Python. In the analyzing process, we will need to understand datasets and apply cleaning, transforming, and visualizing processes to datasets.

Figure 1: The relationship schema of datasets

In the above, we can see the relationships between our user, credit, payment plan, and payments datasets.By using this schema the join process can be implemented among datasets. In the datasets they are primary keys:

- Credit_id
- Payment_id
- Payment_plan_id
- User_id

In depth Explanation

In this case, we expect you to clean and transform datasets and also give some insights into the credit and credit repayments. Please don't forget to use visualization tools such as seaborn, matplotlib, plotly, etc. We want you to feel free about doing an analysis and show us your skills. However, if you are confused about getting started, you can start the analysis with the following steps.

1.Average credit amount of unpaid credits.

2.For late paid credits (credit is paid after its due date), find average number of days after due date. Please do not consider not paid credits.

4.For early paid credits (credit is paid before its due), find average amount.

5.For early paid credits, find average number of days before due.

6.Find average age of customers for, early paid credits, timely paid credits and unpaid credits.

7. Divide the users in the given data into four quartiles based on their credit amounts. Then, compare the credit counts between users in the lowest quartile (1st quartile) and those in the highest quartile (4th quartile). Which quartile has users who performed more credits, and what is the difference between them?

For this assignment, please use some data visualization tool such as Pyplot, Seaborn, Tableau, PowerBI etc. (Any tool that you can access. If you can not access any kind of visualization tool, please comment your ideas.)

Beside above questions, if you see something interesting please share it with us.