

## Data Scientist Modeling Test:

Three datasets will be shared with you for this task:

1. 01\_users.csv,
2. 02\_transactions.csv, and
3. 03\_transaction\_details.csv.

Here's a brief description of each column available in these datasets:

- user\_id: A unique ID assigned to each transaction. (There's a one-to-one mapping between user\_id and transaction\_id.)
- transaction\_id: A unique ID assigned to each transaction.
- unique\_user\_id: An ID to identify each unique individual user (customer).
- user\_loc\_state: The state of residence for each user. The state names are converted into numbers.
- status: Status of the transaction (order), e.g., invoiced (order placed), delivered.
- transaction\_timestamp: Datetime that indicates when the order was placed by the user.
- estimated\_delivery\_timestamp: Datetime that indicates the expected delivery date at the time when the order was placed by the user.
- delivery\_timestamp: Datetime that indicates when the order was delivered to the user.
- payment\_mode: The method of payment.
- num\_installments: Number of payment installments.
- transaction\_value: The total dollar value paid by the user for the items purchased in each transaction.

Based on these datasets complete the following tasks:

1. Perform some EDA (Exploratory Data Analysis) and provide a few comments (in Jupyter Notebook, or separately) on any interesting or unusual trends you may observe in this data.
2. Develop a model to predict whether a user (customer) will make at least one transaction (purchase) within the next six months. Provide some comments on the performance of the model you built.

Submit your code in Jupyter Notebook(s) and/or .py file(s). The Jupyter Notebook(s) and/or python script(s) should be fully executable with minimal changes (like the location of the input files). We will also ask you to walk us through the code.