Synthetic data generation using Variational Autoencoder

1. Max 5 members for each group.
2. Attached is a Credit card dataset containing credit card transactions.
3. You can use the label encoding for columns (exc. amount).
4. Develop a Vational Autoencoder-based synthetic data generation model, as discussed in the class.
5. Generate 2 Million transactions from the trained model.
6. Evaluate the performance of the model by plotting the distribution of each of the columns (real vs synthetic), and calculating the metrics as discussed in the class.