**EAS 509 Project Proposal:**

**High Risk Credit Card Users**

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The title for our project would be **High Risk Credit Card Users**. The objective of this data set is to use unsupervised algorithms to analyze the spending habits and to determine if any of them are at high risk. Some algorithms that might be used would be principal component analysis, hierarchical clustering, k-mean clustering, and others. These methods shall assist in feature engineering and give more insight to the spending habits of the 9000 credit card users. Through analyzing the spending habits, we shall determine if they are a high risk and suggest wealth and financial management habits to reduce the risk. For example, if someone is considered a high risk, with their spending habits of only making minimum payments while making a lot of purchases, it wouldn’t be wise to have them access to a credit card with a high spending limit because with the increasing interest rates, the credit card debts shall accumulate and in the end, cause the person to go bankrupt.

Overall, managing one’s credit card debt and controlling one’s spending habits is important to prevent going into debt. Currently, the credit card debt in the US is right now increasing at a rapid rate to 887 billion dollars in debt1 with inflation at a high rate of 8.2% each month which means many US citizens would need to curb their spending habits to ensure they don’t fall into debt which is becoming easier to do.

Tentatively Link:

<https://www.kaggle.com/datasets/jillanisofttech/market-segmentation-in-insurance-unsupervised?resource=download>

References:

[1] <https://www.lendingtree.com/credit-cards/credit-card-debt-statistics/>