Proposal:

I would like to analyze Black Friday Sales Data for the purposes of the final course assignment. With this data set, we would like to predict purchase amount shopping for a variety of products. The Black Friday Dataset includes the following information:

- customer demographics: age, gender, marital status, city\_type, stay\_in\_current\_city

- product details (product\_id and product category)

- total purchase amount from last month

In the analysis we will cover the following topics:

1 - Regression Model Comparison - use several models, analyze stability, hyper parameter tuning and model generalization.

2 - Clustering Algorithm Comparison - We will apply several clustering algorithms and discuss their limitations.

3 - Classification Algorithm Comparison - we will see how classification algorithms can be applied to break customer base into groups that can be marketed appropriately.

4 - Feature Selection - we will see which features provide the most impact onto the prediction of customer spendings.