**Module 18 Challenge: Crypto Currencies: (Unsupervised Machine Learning)**

**Challenge Overview:**

The goal was to develop a machine learning model that would provide an understandable organization of the multitude of Crypto currencies into a manageable investment portfolio. The data provided was not standardized and needed to be clean-up before it could be used in a machine learning model. With the final output unknown “unsupervised learning” was determined to be better than the previously learn “supervised learning methods. Finally, we selected a clustering algorithm to group the crypto currencies with similar attributes and visualize the output.

Machine Learning Processes:

PCA – the clean and standardize the data

PCA – the remove unnecessary data dimensions

K-Means method to determine optimal number of Clusters

Visualize the final cluster output.