Module 21 Challenge

**Overview:**

**The purpose of this analysis is to determine what types of organizations may be a good investment based on certain criteria like industry, organization type, income, what the funding is for as well as the amount requested.**

Data Preprocessing:

**Utilizing the features of industry type, organization type, income, amount requested and what the funding will be used for, to target which investments will be successful. While the file contains the organization’s name, EIN, use case as well as a Status field, that information would not be useful in determining the success of a funded project.**

Compiling, Training, and Evaluating the Model

**Three layers and 2 activations were used so as not to bog the system resources down with processing time as well as to prevent the model from looking at too much minutia. Only 50 Epochs were used to train the model since the data was not too complex. The model was run with a small input dimension, but was unsuccessful until it was changed to use the number of columns in the features array (X).**

**Summary:**

**The model can be considered successful with a 75% accuracy, but there are too many important features that were omitted. Perhaps if there were markers to show the amount of time that passed before a funding project was deemed successful or not. Some projects may need a longer lead-time before being considered successful. The condition of the economy in addition to the time of the year – was it a holiday season or not, could also influence the outcome of the funding projects and should be considered along with the information already provided.**