**Overview**

I am running this analysis to help Alphabet Soup, a non-profit organization, select funding applicants at the highest success rate possible. A CSV was provided with more than 30,000 organizations that received funding from Alphabet Soup. The target of the model is to achieve a 75% success rate.

**Results**

Data Preprocessing

* + **What variable(s) are the target(s) for your model?** The target variable for the analysis was “Is Successful.”
  + **What variable(s) are the features for your model?** The features of our model were Applications type, Affiliation, Classification, Use Case, Organization, Status, Income Amount, Special Considerations, Ask Amount.
  + **What variable(s) should be removed from the input data because they are neither targets nor features?** EIN, and Name

Compiling, Training, and Evaluating the Model

* + **How many neurons, layers, and activation functions did you select for your neural network model, and why?** During the first test I used 2 layers with 9 and 5 nodes respectively. I used a relu activation function.
  + **Were you able to achieve the target model performance?** My model achieved an accuracy score of 73.3%, Below our 75% goal.
  + **What steps did you take in your attempts to increase model performance?** The first step was to use a different node count for my layers, this time I opted for 8 and 5 nodes respectfully.

**Summary**

Overall, my model did quite well and after optimization earned an accuracy score of 74.0%. To achieve over 75%, I believe using a random forest model could help us achieve our goal.