**Overview**

The purpose of this analysis is to create an algorithm that will help analyze and predict if applicants of the charity is successful or not.

**Results**

Data Preprocessing

1. What variable(s) are the target(s) for your model?

* The target variable is the **IS\_SUCCESSFUL** column.

1. What variable(s) are the features for your model? The variables below are the features of the model:

* **EIN** and **NAME**
* **APPLICATION\_TYPE**
* **AFFILIATION**
* **CLASSIFICATION**
* **USE\_CASE**
* **ORGANIZATION**
* **STATUS**
* **INCOME\_AMT**
* **SPECIAL\_CONSIDERATIONS**
* **ASK\_AMT**

1. What variable(s) should be removed from the input data because they are neither targets nor features?

* The variables **EIN** and **NAME** should be removed.

Compiling, Training, and Evaluating the Model

* 1. How many neurons, layers, and activation functions did you select for your neural network model, and why?
* I used 100, 50, and 20 neurons, 4 layers and Relu, Tanh and Sigmoid activation functions. These combinations yielded a better accuracy rate for my model.
  1. Were you able to achieve the target model performance?
* I did not achieve the target model performance even with trying 3 times.
  1. What steps did you take in your attempts to increase model performance?
* The steps I attempted to increase model performance is to decrease the number of input features, change the activation function, add more nodes and layers.

1. **Summary**: Summarize the overall results of the deep learning model. Include a recommendation for how a different model could solve this classification problem, and then explain your recommendation.

* The result of my model is 72% accuracy with data loss of 56% which is quite high. I recommend to increase accuracy is to give the model more data to train so it will get a better outcome.