**Overview**

The purpose of this analysis:

The nonprofit foundation Alphabet Soup wants a tool that can help it select the applicants for funding with the best chance of success in their ventures. With the help of machine learning and neural networks, the features in the provided dataset create a binary classifier that can predict whether applicants will be successful if funded by Alphabet Soup.

**Results**

* Data Preprocessing
  + What variable(s) are the target(s) for your model? IS\_SUCCESSFUL
  + A computer code with black and white text

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  + What variable(s) are the features for your model? All columns except IS\_SUCCESSFUL and STATUS
  + What variable(s) should be removed from the input data because they are neither targets nor features? EIN and NAME (non-beneficial ID columns)
  + A close-up of a computer code

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* Compiling, Training, and Evaluating the Model
  + How many neurons, layers, and activation functions did you select for your neural network model, and why? Three layers were seen after applying a neural network, and the hidden nodes were increased with every model to test if the accuracy will be better with increase number of nodes
  + Were you able to achieve the target model performance? I was not able to achieve the 75% model accuracy target
  + What steps did you take in your attempts to increase model performance? I added additional hidden nodes in an attempt to achieve higher model accuracy.

**Summary**

* The initial model achieved an accuracy of 72.7%, but further optimization was attempted.

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* Higher selection of nodes in Version II did not significantly improve performance, with an accuracy of 72.84%.

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* Version III with much higher number of nodes also resulted in only slightly improved accuracy of 73.05%.

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Unfortunately, the difference between the number of nodes in all 3 tries was not significant to improve the accuracy of the model.

The accuracy could be also improved by considering other processes, such as increasing the number of layers, dropping more columns in the dataset, or introducing the NAME column back into the model.