1. **Overview**

Alphabet Soup is looking for likely candidates. With the dataset provided, I was able to look at the information given and determine which companies were most eligible for funding. The CSV has more than 34,000 organizations with metadata showing many different important details regarding each organization, and how they spent their money. When analyzing this data, and filtering it we can come to clear conclusions as to which organizations are eligible for funding.

1. **Results**: Using bulleted lists and images to support your answers, address the following questions:

* Data Preprocessing
  + The variable that is the target for my model is the column named ‘Is successful’
  + The variable that is the feature for my model is the data frame, besides for the column ‘Is successful’

A close-up of a computer code

Description automatically generated

* + I removed three columns: EIN, NAME and USE\_CASE from the input data because they are neither targets nor features.

A screenshot of a computer code

Description automatically generated

* Compiling, Training, and Evaluating the Model
  + I chose three layers, each with a different amount of neurons, and three different activation functions for my neural network model. I did this to achieve higher Accuracy.

A screenshot of a computer program

Description automatically generated

* + I was not able to achieve target model performance, however I did get more accurate results.

A screen shot of a computer code

Description automatically generated

* + I took many different approaches to increasing model performance, I started with dropping a column as well as increasing the number of epochs, I also added another layer as well as more neurons. The layer actually lowered the accuracy. So I went back to what I started with, as well as the epochs

1. **Summary**

The overall results of this deep learning model were fascinating, it required concentration on the dataset, determining what was needed to give it a higher performance. I recommend a larger team to deal with this dataset and study what it needs to be more accurate.