1. \*\*Overview\*\* of the analysis: Explain the purpose of this analysis.

Overview: The purpose of this analysis was to see if it’s possible to predict whether applicants succeed with their funding. This would be useful for the foundation to know which applications to approve for greater success.

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

Results:

* Data Preprocessing
  + The target variable was ‘IS\_SUCCESSFUL’ since what we’re interesting in knowing whether or not applications are successful.
  + We’re looking at Application\_Type, Affiliation, Classification, Use\_Case, Organization, Income\_Amt, Special\_Considerations, and Ask\_Amt
  + EIN, NAME, and STATUS were removed from the dataset since these have little to do with whether or not a project is successful.
* Compiling, Training, and Evaluating the Model
  + I ended up going with 3 layers with 100, 70, 40.
  + I tried nearly every possible activation function to but I settled with relu and sigmoid since it provided the best results.
  + I could not achieve the target model performance at all, it never scored above 73%.
  + I dropped columns, added columns, changed bin cutoff’s, tried many neurons combinations, many different layers, many different activations, increasing and decreasing epoch. But nothing would improve.

Summary:

Overall the results from the deep learning model were very unsatisfactory. I cannot offer a recommendation for different model due to just not having enough understanding as to what it would take to solve this. Maybe I’ll have the answer later when I read machine learning books.