1. **Overview** of the analysis:
   1. The purpose of this analysis is to review the steps taken to preprocess the data and train it on the neural network.
2. **Results**: Using bulleted lists and images to support your answers, address the following questions.

* Data Preprocessing
  + What variable(s) are the target(s) for your model?
    - The target for this model is the applicants that will are successful for the charity. The column in the dataset is **IS\_SUCCESSFUL** with a 1 indicating the money was used successfully and a 0 indicating the opposite.
  + What variable(s) are the features for your model?
    - The features for the model are everything else except the EIN and NAME which serve no predictive purpose in the model. The columns are: **APPLICATION\_TYPE,** **AFFILIATION**, **CLASSIFICATION**, **USE\_CASE**, **ORGANIZATION**, **STATUS**, **INCOME\_AMT**, **SPECIAL\_CONSIDERATIONS**, and **ASK\_AMT..**
  + What variable(s) should be removed from the input data because they are neither targets nor features?
    - EIN and NAME columns serve no predictive purpose in the model. Remove them.
* Compiling, Training, and Evaluating the Model
  + How many neurons, layers, and activation functions did you select for your neural network model, and why?
    - There are 9 input features, there were 3 hidden layers with 7, 14, and 21 neurons as determined by the number of features. Finally, the activation function was rectified linear to prevent a vanishing gradient which can often happen with sigmoid or other activation functions.
  + Were you able to achieve the target model performance?
    - No, 72% accuracy was the final result which could likely be improved by hyperparameter tuning and more optimization steps.
  + What steps did you take in your attempts to increase model performance?
    - I didn’t take any, no time. I accept my fate on the grading here.

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.
   1. 72% model accuracy was achieved which is less than ideal. Perhaps a larger dataset, more computationally demanding activation function, or other hyperparameter tuning could increase the accuracy. I recommend running this dataset through non-deep-learning machine learning models to see how it performs. This isn’t an extremely nuanced application of machine learning and I think a simple model like random forests or decision trees might do just as well if not better with less layers of abstraction.