REPORT: GINA BUTLER

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

The purpose of this analysis is to use machine learning models to predict the applicants with the best chance of success in their ventures the nonprofit foundation Alphabet Soup.

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?
            1. The variable that is the target is X = app_dummies_df.drop(["IS_SUCCESSFUL"], axis = 1).values
        - What variable(s) are the features for your model?
            1. The variable that was the feature is Y= app_dummies_df["IS_SUCCESSFUL"].values
        - What variable(s) should be removed from the input data because they are neither targets nor features?
            1. I think “CLASSIFICATION” values that were 1 should have been dropped.
    - Compiling, Training, and Evaluating the Model
        - How many neurons, layers, and activation functions did you select for your neural network model, and why?
            1. I used two layers of each model, because I didn’t think that extra layers would increase the accuracy of the model.
        - Were you able to achieve the target model performance?
            1. I wasn’t able to reach target model performance. All of my models were around 73%.

        - What steps did you take in your attempts to increase model performance?
            1. I change the epoch amounts and neuron amounts in the layers.

3. **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 overall results were at 73% accuracy. I think perhaps dropping another column could increase it based on the example from in class. However, I chose to vary the epochs and neurons in my attempts. I do recommend that perhaps a different model could work. I don't know specifically which one would be best because I hadn't explored the different model types.