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

Alphabet Soup, a non-profit foundation, aims to develop an algorithm to forecast the success of funding applicants. Leveraging machine learning and neural networks, the task is to utilize the features within the dataset to predict whether applicants are likely to be successful if funded by Alphabet Soup or not.

To kick off the data processing, we started by removing any unnecessary information. First removing the columns EIN and NAME, keeping only the relevant features for the model. Next, we split the data into training and testing sets. Our target variable, "IS_SUCCESSFUL," was set with a value of 1 for "yes" and 0 for "no." We set thresholds to lump together infrequent variables, tagging them as "Other." Once binned, categorical variables were encoded using the get_dummies() function after ensuring the binning was effective.