**MODULE 22: DEEP LEARNING CHALLENGE**

Overview:

The nonprofit foundation Alphabet Soup wants to select the applicants to fund which would be the best chance of success in their ventures. Our goal is to use machine learning and neural networks to help them see which organizations would be the most successful if funded. We started with the CSV file that was provided to us to see the outcome with the past funding.

Results:

* Data Preprocessing
  + What variable(s) are the target(s) for your model?
    - The variables that were our target for this model is the IS\_SUCCESSFUL which indicated that the targe was successful.
  + What variable(s) are the features for your model?
    - The variable that we chose for the features is the IS\_SUCCESSFUL.
  + What variable(s) should be removed from the input data because they are neither targets nor features?
    - We removed the EIN and NAME variable.
* Compiling, Training, and Evaluating the Model
  + How many neurons, layers, and activation functions did you select for your neural network model, and why?Table

    Description automatically generated
  + Were you able to achieve the target model performance?
    - When removing EIN and Name the target model performance fell about 73% accuracy which isn’t too bad, but we wanted it to be over 75%. Text

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  + What steps did you take in your attempts to increase model performance?
    - The second time when we just removed EIN and kept name the target model performance fell about 79% which is what we were wanting.Text

      Description automatically generated with medium confidence