********** Read Me **********

Dataset Description:

The dataset had 5574 messages, each annotated as SPAM or HAM.

Preprocessing involved removal of Standard English stop words and stemming.

- 80% of Data have been considered as Training Dataset.
- 10% of Data have been considered as Validation Set.
- 10% of Data have been considered as Test Set.

***** Dataset is not being published publicly. But if you are interested you can drop me a mail. *****

Implementation Detail:

- Stochastic Gradient Descent has been used to train the Neural Network.
- Experiments have been performed with four kinds of Neural Networks.
    - Neural Network Without Softmax at last layer
        - Sigmoid function as an Activator. (Python Script can be found at 'Without Softmax/partOne.py'. Plots of the experiments can be found inside 'Without Softmax/Sigmoid' folder.
        - tanH as an Activator Function. (Python Script can be found at 'Without Softmax/partOne.py'. Plots of the experiments can be found inside 'Without Softmax/tanH' folder.
    - Neural Network With Softmax at last layer
        - Sigmoid function as an Activator. (Python Script can be found at 'With Softmax/partTwo.py'. Plots of the experiments can be found inside 'With Softmax/Sigmoid' folder.
        - Sigmoid function as an Activator. (Python Script can be found at 'With Softmax/partTwo.py'. Plots of the experiments can be found inside 'With Softmax/Sigmoid' folder.
- For Summary And Final Model Selection please go through the report.pdf, which can be found inside same folder.