LSTM Implementation Details (Extended Report)

This document contains the report regarding LSTM and also the link to my google drive where all the models and related work has been saved.

Link to Google Drive:
https://drive.google.com/drive/folders/16d37qtJS6YXpHBNk7pTflXK8R095gTiX?usp=sharing (Can be accessed upon request)

LSTM Details:

- I have built a sentiment classification model using LSTM neural network architecture is defined in this code.
- PyTorch library is used to implement the model and pre-trained word embeddings from gensim library are taken as input.
- The LSTMSentimentClassifier class is used to initialize pre-trained word embeddings and implement the LSTM, dropout, linear and sigmoid layers of the model.
- A train-test split function is implemented to split the data into training and testing sets, and a tokenization and padding step is performed for the X_train and X_test datasets.
- The model is trained using the training and validation data loaders, with Adam optimizer and Binary Cross Entropy loss function for 10 epochs, and the accuracy and loss are printed for each epoch.

Note:

1) Please note that I have already completed the homework within the due date and has submitted the link containing all the work which can be checked by the submission time in canvas and my commits in GitHub repository. This is only an additional effort to update it further with the LSTM details.
2) I have put my sincere efforts in the implementation and have not further to show the accuracy and results respecting the time given by the professor and to adhere to the homework's policy of not working beyond the due date.