

Write a script in python (you can use any IDE) name the python script **ps_firstname** (*where firstname is your firstname*). In your script carry out the following:

The IMDB dataset consist of movie reviews from IMDB, labeled by sentiment (positive/negative). Reviews have been preprocessed, and each review is encoded as a list of word indexes (integers). For convenience, words are indexed by overall frequency in the dataset, so that for instance the integer "3" encodes the 3rd most frequent word in the data. Import and load the IMDB dataset from `tf.keras.dataset` module and only keep the first 25,000 data samples. Preprocess the input features to be uniform length of size 100 (i.e. input features should have a dimension size of (# of data samples, 100), where samples with less than 100 words are padded with 0 and samples with more than 100 words are truncated. Train (15000 samples) and validate (5000 samples) a one-layer LSTM model with 100 units on 1 epoch using appropriate optimizer, loss function, and evaluation metrics. Use default values for all other hyperparameters not specified. Determine the number of Trainable Parameters of the model.