Summary of each model and the best hyperparameters for each with a table showing the accuracy against each parameter (i.e., 80% 20% ratio, 70% 30% ratio, and same for sequence padding length).

Splitting Ratio	Padding Length	Number of Units	Embedding Dimension	RNN Summary	LSTM Dropout	LSTM Summary
80%/20%	571	64	200	**Accuracy:** 0.8606 Total Params: 1,586,355	0.2	**Accuracy:** 0.8727 Total Params: 1,637,235
70%/30%	571	64	200	**Accuracy:** 0.8536 Total Params: 1,500,155	0.2	**Accuracy:** 0.8563 Total Params: 1,551,035
80%/20%	571	128	128	**Accuracy:** 0.8470 Total Params: 1,037,571	0.2	**Accuracy:** 0.8646 Total Params: 1,081,091
70%/30%	571	128	128	**Accuracy:** 0.7008 Total Params: 982,403	0.2	**Accuracy:** 0.8518 Total Params: 1,072,031
80%/20%	571	128	300	**Accuracy:** 0.8603 Total Params: 2,409,099	0	**Accuracy:** 0.8560 Total Params: 2,573,835
70%/30%	571	128	300	**Accuracy:** 0.7972 Total Params: 2,279,799	0	**Accuracy:** 0.8543 Total Params: 2,444,535
80%/20%	571	32	200	**Accuracy:** 0.8603 Total Params: 1,576,755	0.2	**Accuracy:** 0.8747 Total Params: 1,599,123
70%/30%	571	32	200	**Accuracy:** 0.8509 Total Params: 1,490,555	0.2	**Accuracy:** 0.8624 Total Params: 1,512,923
70%/30%	571	64	200	**Accuracy:** 0.8536 Total Params: 1,500,155	0.4	**Accuracy:** 0.8561 Total Params: 687,163

RNN Model: The highest accuracy (0.8606) was achieved with a splitting ratio of 80%/20%, 64 units, and an embedding dimension of 200. The lowest accuracy (0.7008) for the RNN model was achieved with a splitting ratio of 70%/30%, 128 units, and an embedding dimension of 128.

LSTM Model: The highest accuracy (0.8747) was achieved with a splitting ratio of 80%/20%, 32 units, and an embedding dimension of 200 with a dropout rate of 0.2. The lowest accuracy (0.8518) for the LSTM model was achieved with a splitting ratio of 70%/30%, 128 units, and an embedding dimension of 128 with a dropout rate of 0.2.

Effect of Splitting Ratio: Generally, a splitting ratio of 80%/20% tends to perform better than 70%/30% across both RNN and LSTM models.

Effect of Number of Units and Embedding Dimension: Increasing the number of units and embedding dimensions doesn't consistently improve accuracy. For instance, in the RNN model, increasing units to 128 and embedding to 300 resulted in decreased accuracy.

Effect of Dropout Rate: with a dropout rate of 0.2, the LSTM model achieved an accuracy of 0.8747 with a total of 1,599,123 parameters. increasing the dropout rate to 0.4 resulted in a slightly lower accuracy of 0.8561, but with a substantial reduction in the total number of parameters to 687,163.

In conclusion, the LSTM model consistently demonstrates superior accuracy compared to the RNN model across various configurations and hyperparameters.