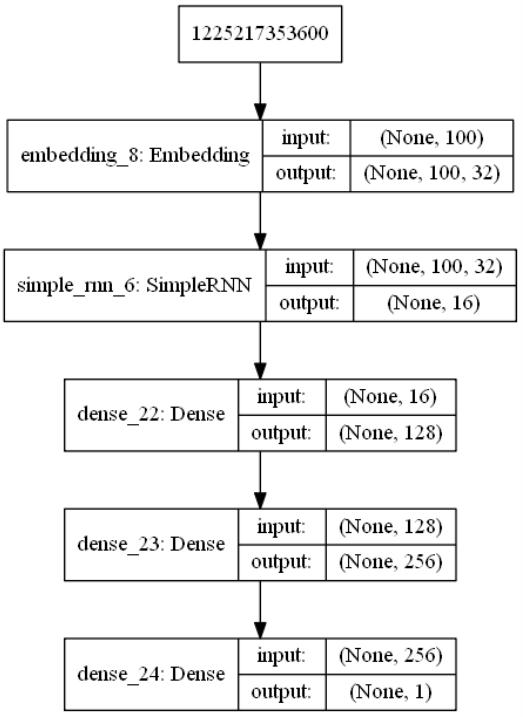
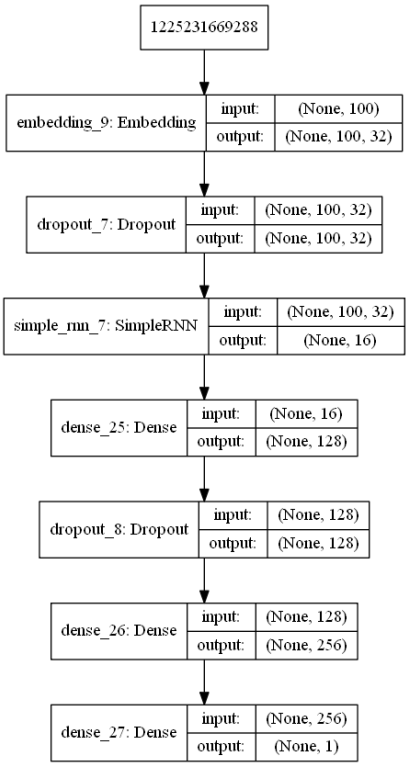
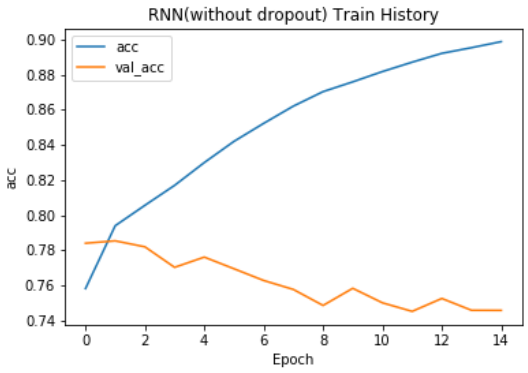
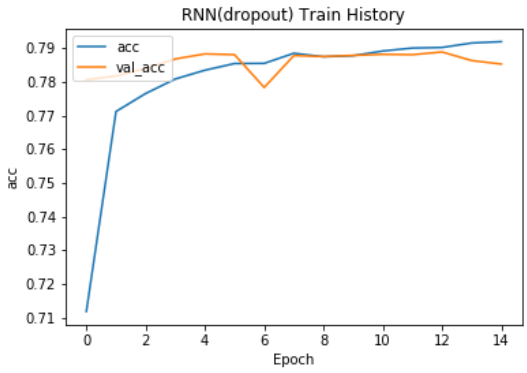
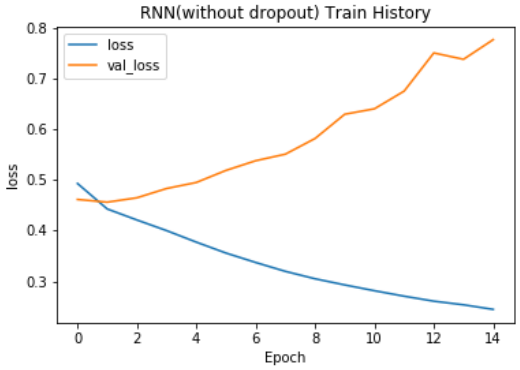
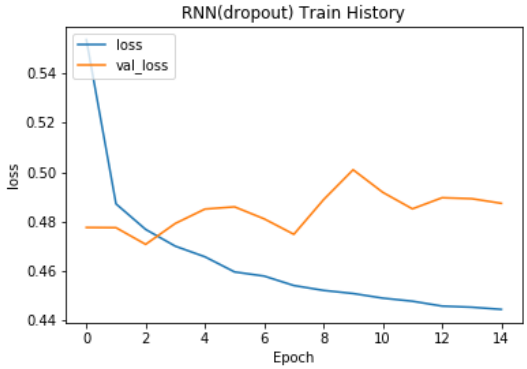
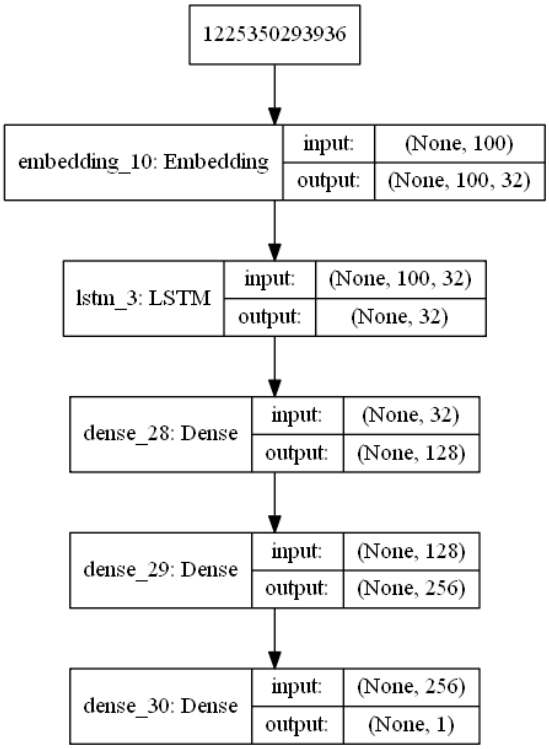
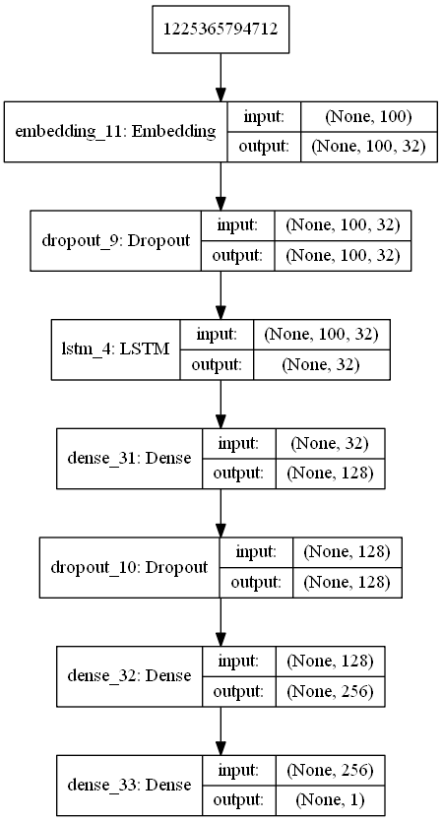
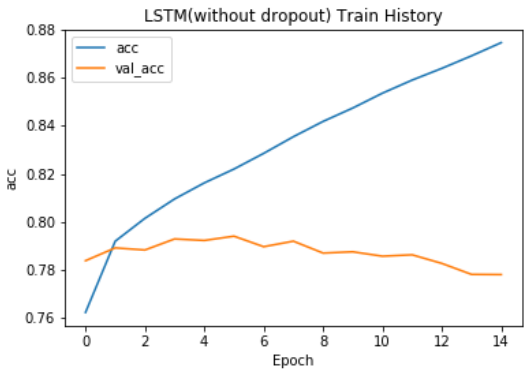
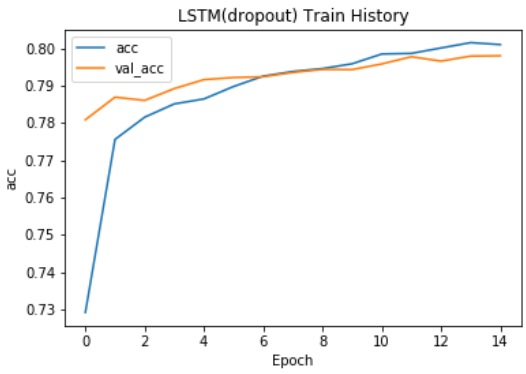
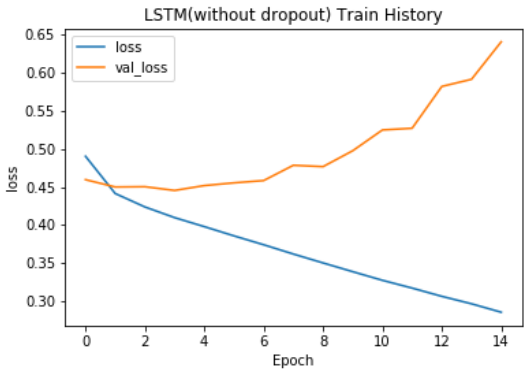
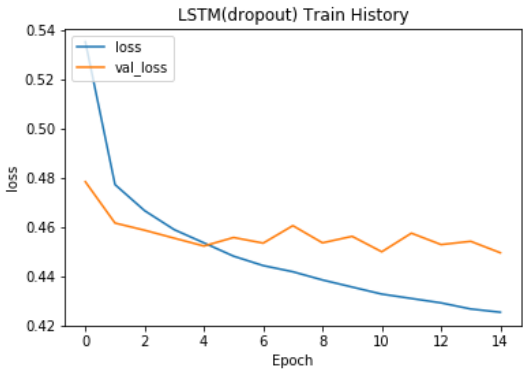
Data Mining (Homework 4)

2018/12/7

1. **RNN**

	Without Dropout	Dropout
Model Structure	Parameters:***157,841*** 	Parameters:***157,841*** 
Accuracy		
Loss		
Testing Accuracy	***0.7777777724795871***	***0.8444444391462538***

LSTM

	Without Dropout	Dropout
Model Structure	Parameters: ***167,425*** 	Parameters: ***167,425*** 
Accuracy		
Loss		
Testing Accuracy	***0.7888888928625318***	***0.8333333280351427***

2. 發現與討論：例如 RNN 與 LSTM 的準確度比較、加入 Dropout 後的 Loss 圖變化、是否有 Overfitting/ Underfitting 的情況發生等。

從 RNN 跟 LSTM 的實驗中發現在網路中加入 Dropout layer 後，對 training data 的 fitting 程度都會降低，也就是說 Accuracy 不會升到太高(Loss 也不會降到太低)，而 validation data 的 loss 不會有飆升的現象，說明了加入 Dropout 可以避免網路在 training 的時候 overfitting。