Summary result

From the example of the book, without any modifications, we found the final result for test loss and test accuracy were [0.283409982919693, 0.8870400190353394] respectively for the data trained on 4 epochs. Which means that on average, the model's predictions are off by approximately 0.283 units compared to the true labels. The test accuracy approximately 0.887 means that the model correctly classifies movie reviews as positive or negative with an accuracy of about 88.7%.

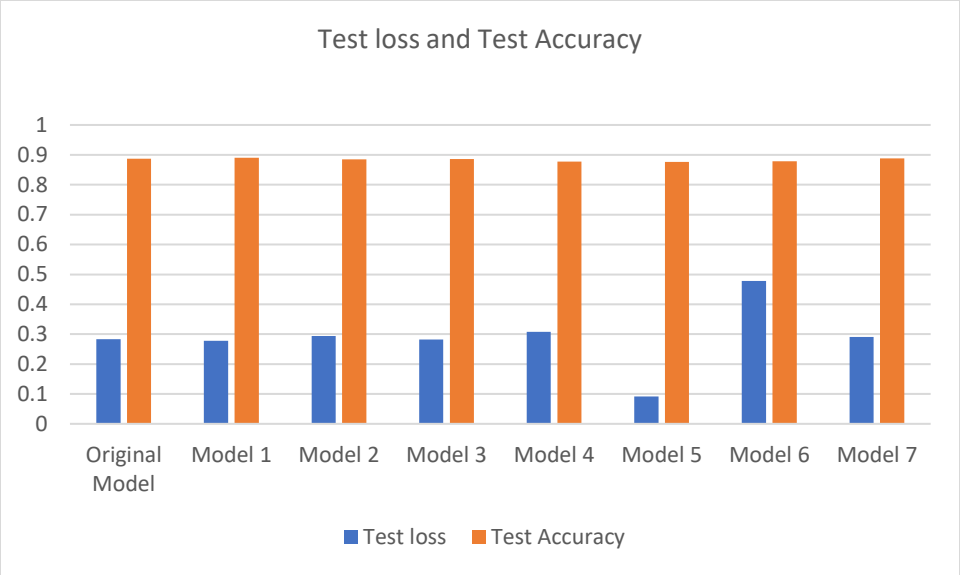
Model Specifications for test:

| | Layers | Nodes | Loss Function | Activation | Dropout |
|---|---|---|---|---|---|
| Original Model | 2 | 16,16 | binary_crossentropy | relu | N/A |
| Model 1 | 3 | 16,16,16 | binary_crossentropy | relu | N/A |
| Model 2 | 1 | 16 | binary_crossentropy | relu | N/A |
| Model 3 | 2 | 16,32 | binary_crossentropy | relu | N/A |
| Model 4 | 2 | 16,64 | binary_crossentropy | relu | N/A |
| Model 5 | 2 | 16,16 | mse | relu | N/A |
| Model 6 | 2 | 16,16 | binary_crossentropy | tanf | N/A |
| Model 7 | 2 | 16,16 | binary_crossentropy | relu | .5 after each layer |

Comparison for test loss and test accuracy across all experimental models.

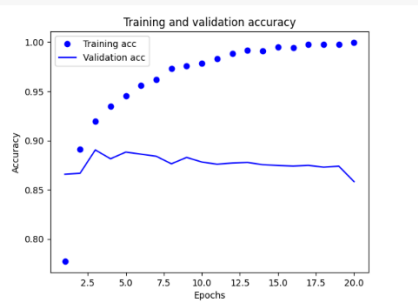
| | Test loss | Test Accuracy |
|---|---|---|
| Original Model | 0.283409983 | 0.887040019 |
| Model 1 | 0.277820617 | 0.889959991 |
| Model 2 | 0.293889076 | 0.884880006 |
| Model 3 | 0.282344639 | 0.886039972 |
| Model 4 | 0.307927161 | 0.877640009 |
| Model 5 | 0.091067247 | 0.875919998 |
| Model 6 | 0.47781831 | 0.87875998 |
| Model 7 | 0.290339559 | 0.888040006 |

Model 2 has the highest test accuracy and Model 5 has lowest test loss.

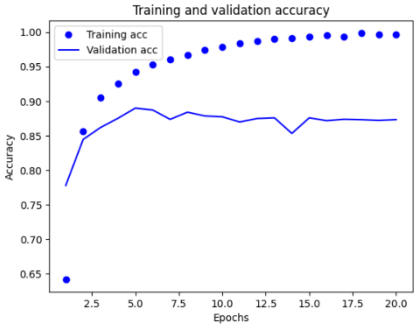



Comparison for validation accuracy and Training Accuracy across all models.

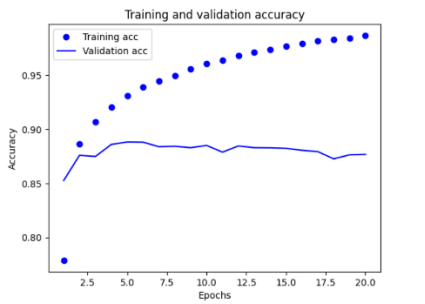
Original Model



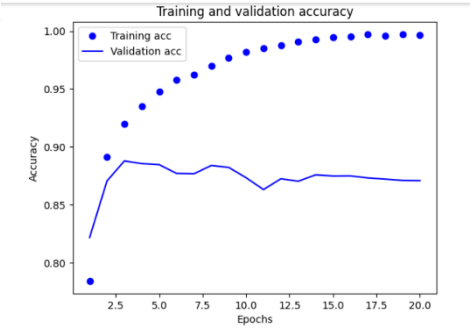

Model 1



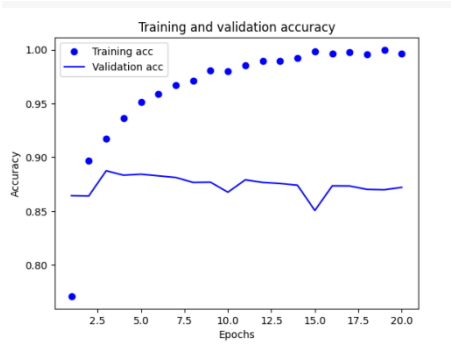

Model 2



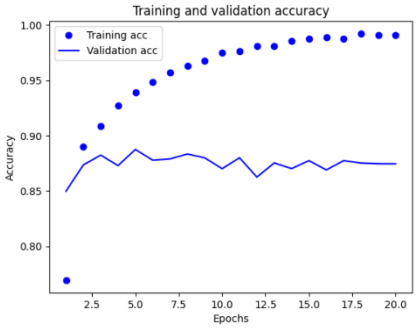

Model 3



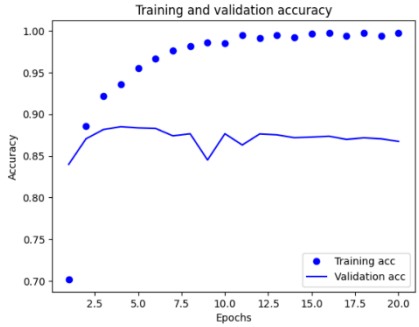
Model 4




Model 5




Model 6




Model 7