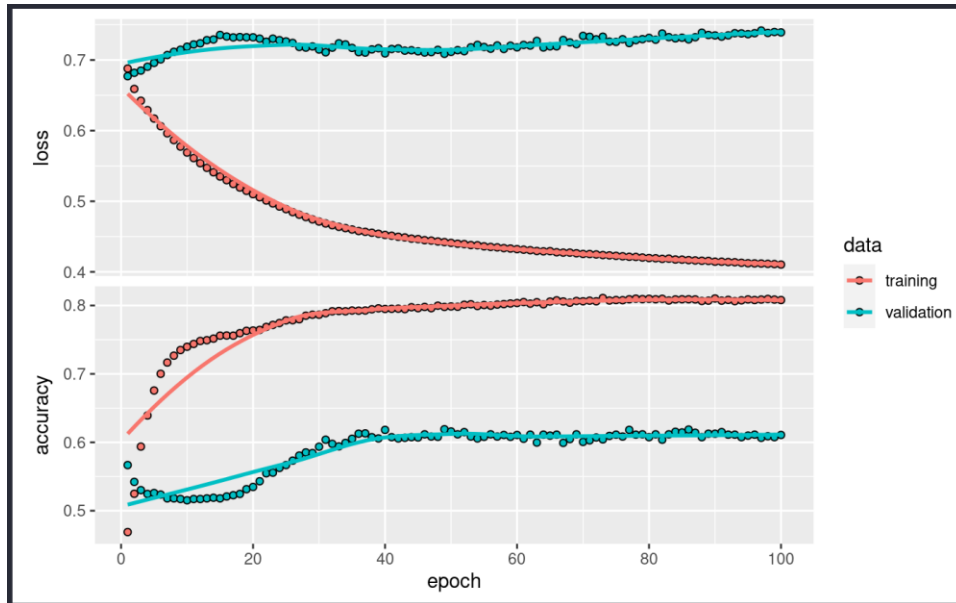


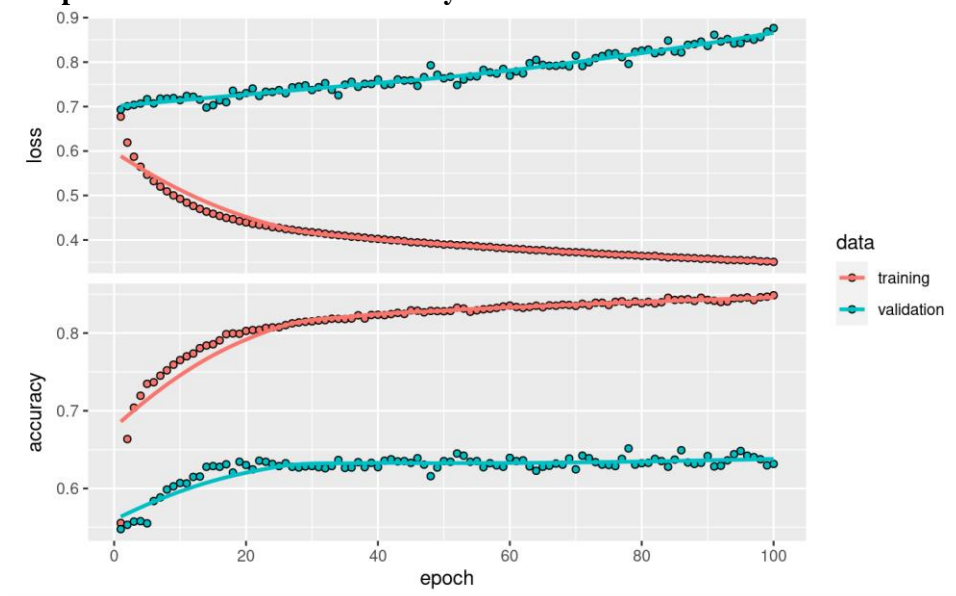
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DSE 6211
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Exercises

1) Copy and paste the loss and accuracy curves obtained from running the code above (note, the curves will be slightly different than those shown in this lab).



2) Change the hidden layers to have 50 units and 25 units, respectively, and re-run the code. Copy and paste the new loss and accuracy curves.



3) Compare the curves from 1) and 2) and discuss which architecture (i.e., number of nodes in the hidden layers) results in better performance.

Looking at the curves from 1 and 2, model 1 has 31 nodes, and model 2 has 76 nodes, we can see that model 2 has a better accuracy because of the validation set increases over each EPOCH.

4) Calculate the accuracy on the test set for the models in 1) and 2). Which accuracy is better?

Looking at the accuracy for Model 2 it has a slightly higher accuracy and slightly lower loss.

Model 1:

```
results <- model %>%
  evaluate(test_features, test_labels, verbose = 0)

results
#> # A tibble: 1 x 2
#>   loss accuracy
#>   <dbl>   <dbl>
#> 1 0.5262994 0.7498853
```

Model 2:

```
results_2 <- model_2 %>%
  evaluate(test_features, test_labels, verbose = 0)

results_2
#> # A tibble: 1 x 2
#>   loss accuracy
#>   <dbl>   <dbl>
#> 1 0.5209655 0.7627352
```