ReutersAssignment:

For C1:

2 Hidden layers:

"""C1: Standard/Optimal Model (2x64 units)."""

```
        layers.Dense(64, activation="relu"),
        layers.Dense(64, activation="relu"),
        layers.Dense(NUM_CLASSES, activation="softmax")
```

Result:

Test Loss (Categorical Crossentropy): 0.9756

Test Accuracy: 0.7867

For C2 (Information Bottleneck)

Turn the second hidden layer to 4units to test the information bottleneck

```
         layers.Dense(64, activation="relu"),
        # Turn second intermediate layer into 4 units(still ReLU activation),
        #to test information bottleneck
        layers.Dense(4, activation="relu"),
        # Output layer (46 units, Softmax activation for multiclass classification)
        layers.Dense(NUM_CLASSES, activation="softmax")
```

Result:

Test Loss (Categorical Crossentropy): 1.8024

Test Accuracy: 0.5040

For C3 (Smaller Network)

Use two smaller hidden layers both with 32 units(still relu)

```
# First intermediate layer (32 units, ReLU activation)
layers.Dense(32, activation="relu"),
# Second intermediate layer (32 units, ReLU activation)
layers.Dense(32, activation="relu"),
layers.Dense(NUM_CLASSES, activation="softmax")
```

Result:

Test Loss (Categorical Crossentropy): 0.9834

Test Accuracy: 0.7845