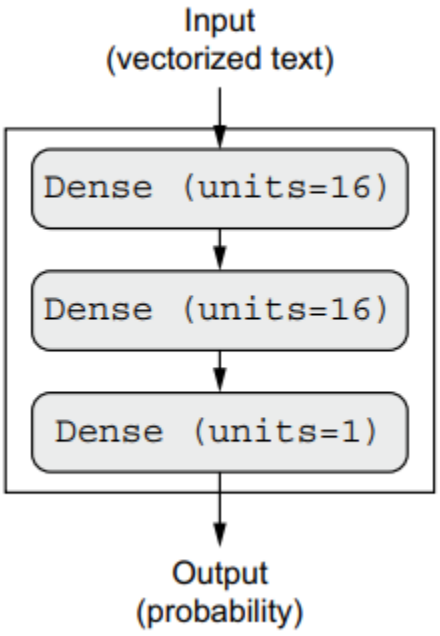
Classifying movie reviews (You will develop the ability to determine whether movie reviews are positive or negative by analyzing their textual content.)

1. The IMDB dataset, like MNIST, is conveniently available in Keras (accessible through tensorflow.keras.datasets import imdb). Setting the argument num_words=10000 ensures that only the top 10,000 most frequently occurring words in the training data are retained.

2. Ensure uniform length for your lists by padding them, transforming them into integer tensors of shape (samples, max_length). Begin your model with a layer capable of handling such integer tensors.

3. Convert your lists into multi-hot encoded vectors, representing them as vectors of 0s and 1s. For example, the sequence [8, 5] would be transformed into a 10,000-dimensional vector where all elements are 0s except for indices 8 and 5, which are 1s.

4. Construct your model architecture with layers utilizing rectified linear unit (relu) activation functions, culminating with a sigmoid activation function in last layer.



5. Confirming the validity of your method.
6. Visualizing the training and validation loss.
7. Illustrating the training and validation accuracy through plots.