

# Classifying Intention from Text



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I want to pay my bill



**“Pay bill”**

I want to see what flights  
leave today



**“Flights”**

I want to know where my  
package is



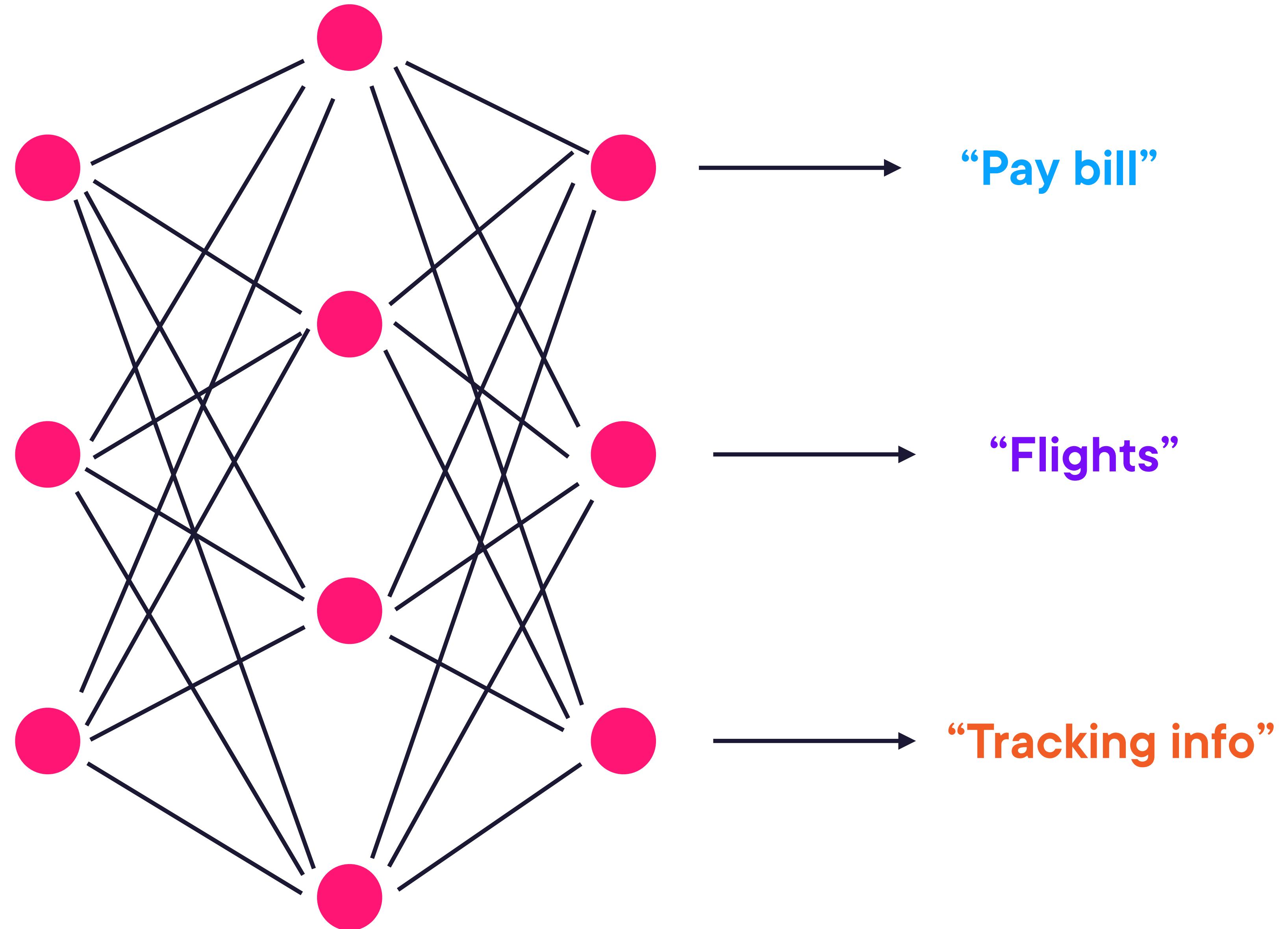
**“Tracking info”**

I want to change my phone  
plan



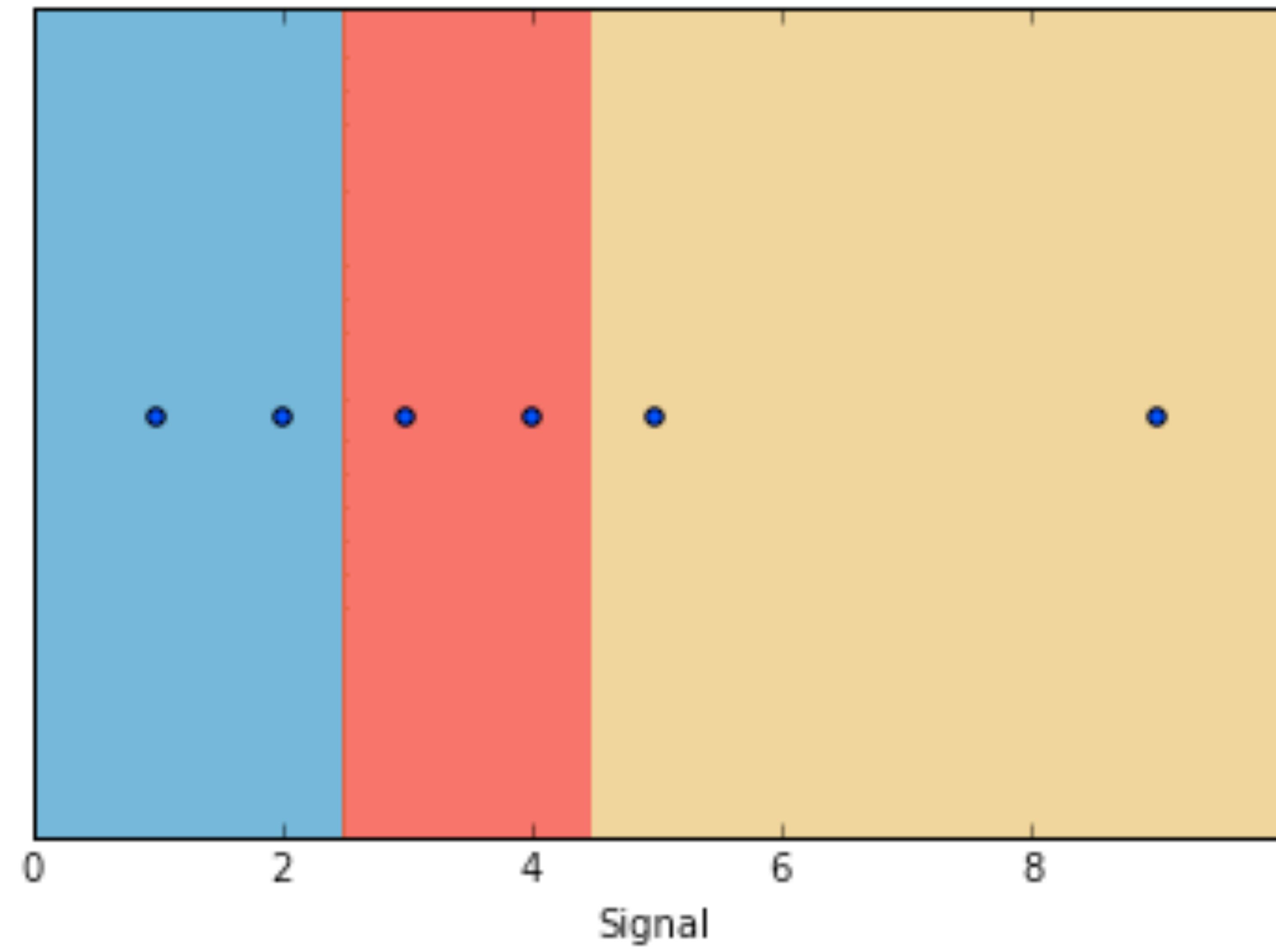
**??**

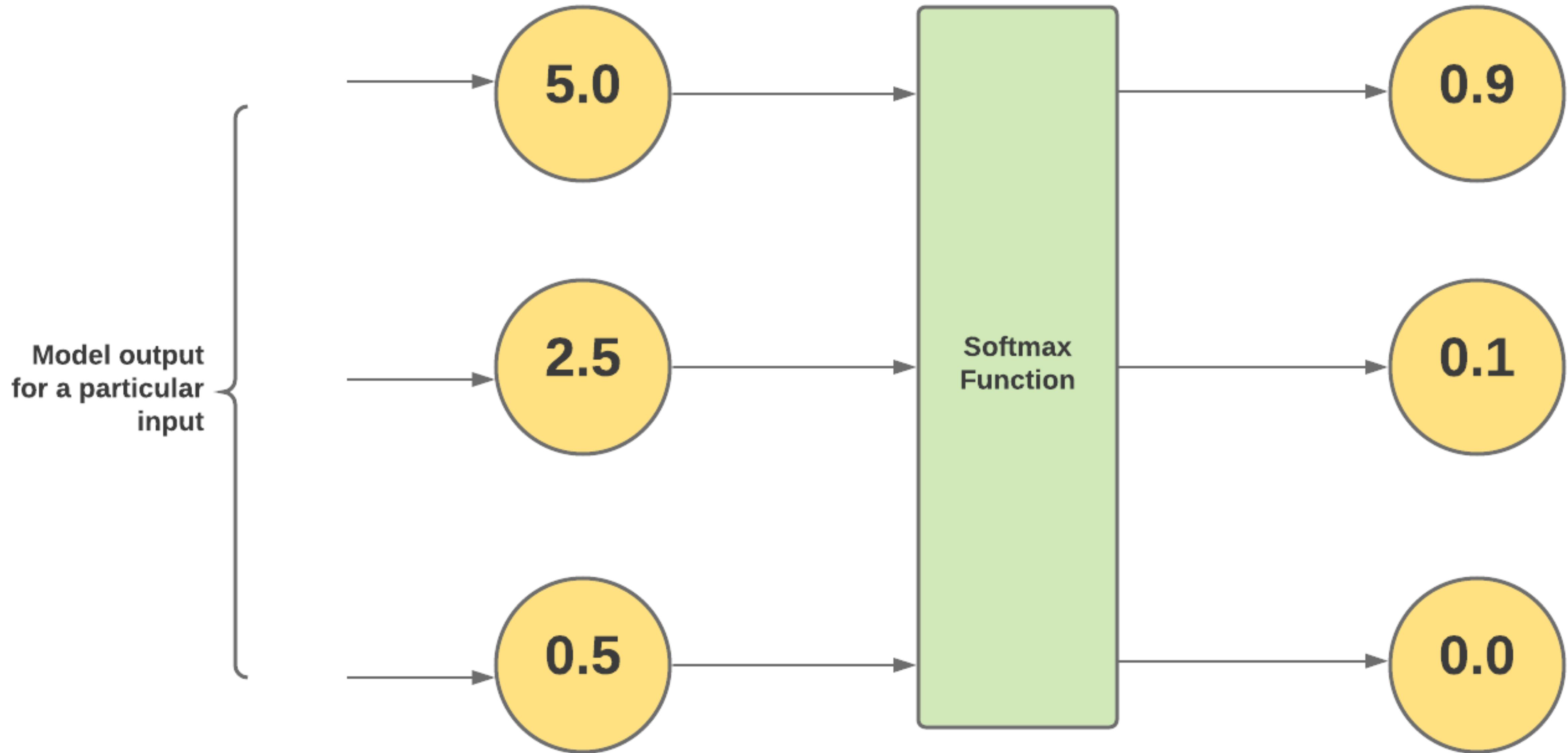
**Input Text**





# **Reminder: Softmax and CrossEntropy**





# Loss Function for Classification Problems

CategoricalCrossentropy

SparseCategoricalCrossentropy

# **Classifying customer intent from text**

# Takeaways



Ensure to factorise and later convert to one hot your labels dataset



Ensure to have as many output neurons as the number of classes



You can use softmax and categorical cross entropy; however, if you don't apply softmax, then set the keyword argument `from_logits=True`



Ensure to do the appropriate backtracking on the manual validation

# Keys



Practice passing from arbitrary labels into a one-hot representation in tensorflow



Create a multiclass model on the yelp dataset predicting Positive, Negative and Neutral



Try training the embedding layer as well and verify the results!

# Helping Users with Text Generation

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