

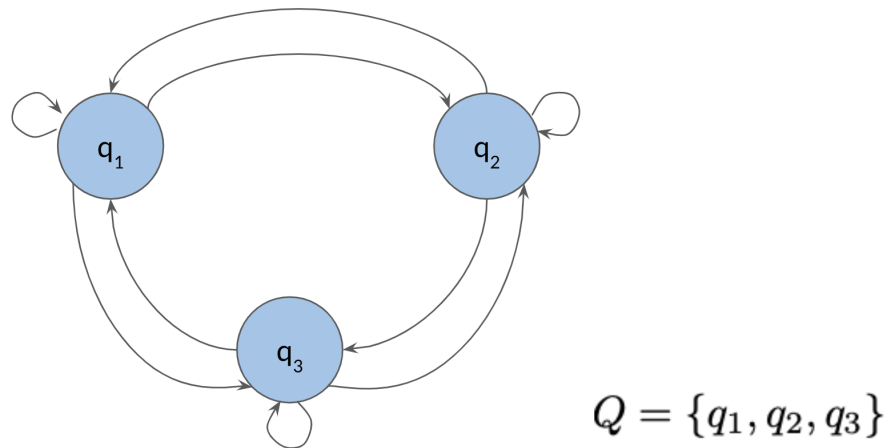
Markov Chains

You can use Markov chains to identify the probability of the next word. For example below, you can see that the most likely word after a verb is a noun.

Why not learn swimming?
verb noun

Why not learn swim?
verb verb

To properly model the probabilities we need to identify the probabilities of the POS tags and for the words.



The circles of the graph represent the states of your model. A **state** refers to a certain condition of the present moment. You can think of these as the POS tags of the current word.

$Q = \{q_1, q_2, q_3\}$ is the set of all states in your model.