PS6: *Markov Model of Natural Language*

The focus on this assignment to convert the concept of the Markov Model into code. The Markov model is concept that predicts each letter for the next and finds the probability of what will be the next set of letters. To accomplish this assignment we needed to create a Markov model of order k that are given from a given text of type string. Then using a Markov chain to get the current state in a k-gram of the next character from the selected random probability from Markov model.

One key library we used was the map library. The map function is a container that can store elements formed by a combination of key values an mapped values in any specific order. In the constructor, I saved the string and number of k values to the member variables. Then created a string that took each character and pushed back the letter. I needed to check the char if its already in the alphabet by having a for loop and iterator through the matrix. Then insert the character into the map. In the randk function, I would have a random value from the kgram and then finally print it out. The gen function, would print out the next kgram until the size of string . Then the operator would be called each time the map needed to be printed out.

Learning about the data type map using to store different data types. I understood how the Markov model could be used in different projects. Thankfully, I had help from a tutor to help explain the lay out of this program and what is needed.