

Ps6: Markov Model

Assignment Description:

This assignment asked us to make a program that outputs similar but not the same text as the input file using a Markov Model. This model takes the input text and breaks it into sub strings called kgrams these kgrams compute the next character based on the probability of that character in the input file. This creates text similar to the input file in vocabulary but is a new creation. The larger the kgram the more accurate the predictions.

Key Concepts and Algorithms:

The key concept in this assignment is a Markov Model. This is a model in probabilistic forecasting that is used to predict future states based on the current state and not previous states. Markov models are applied in many predictive applications but for this assignment we used it to create a predictive text algorithm.

What I learned in this assignment:

During this assignment I learned how to use maps in the standard template library and how to use them to create a table for holding data. This project required this maps instead of other more familiar data structures like vectors or queues. This assignment also taught me how devices like smart phone create predictive text using Markov chains, in order to figure out what you are trying to type.