NLP Assignment1 Report

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1. Generate random sentences using n-grams; explain what happens as n increases, based on your output.

Answer: based on the output As n increases, the generated sentences tend to become more coherent and contextually relevant. Here's why:

- For n = 1 (unigrams), the generated sentences will be a sequence of individual words. Since unigrams don't capture the contextual dependencies between words, the generated sentences may lack coherence and may not make much sense.
- As n increases to 2 (bigrams), the generated sentences start to consider pairs of consecutive words. The sentences become more meaningful as the model takes into account the immediate word that follows each word. However, the generated sentences may still lack overall coherence and naturalness.
- When n = 3 (trigrams), the model considers three consecutive words at a time. This allows for capturing more context and dependencies between words. The generated sentences start to exhibit better coherence and are more likely to form grammatically correct phrases and clauses.
- As n continues to increase to 4 (four-grams), the model incorporates even more context by considering four consecutive words. The generated sentences become more coherent, and the model can capture longer-range dependencies in the text. The sentences are more likely to form complete and meaningful phrases and sentences.

Generally As n increase the generated sentences tend to become more coherent and contextually relevant.