**NLP Day 1: Morning Assignment**

In your pair, try to answer the following questions without looking up the answers:

What properties of language make it difficult to analyze?

A. Language is not as structured as numeric data, words are categorical and it’s hard to compare the same word as a noun or a verb

What is the difference between a lexicon and a grammar?

1. Lexicon set of words or body of knowledge, Grammar is a system and structure of language

What is the difference between syntax and morphology?

1. Syntax is the set of rules that govern structure and Morphology how words are formed

What is the difference between a word stem and a lemma?

1. Stem is the part of the word that you affix a prefix or suffix and Lemma is the root or base of the word

Name 4 examples of parts of speech.

1. Noun, verb, pronoun, adjective and adverb

What are some examples of named entities?

1. Person’s name, company and place

What are the steps in the NLP workflow?

1. Data cleaning (removing typos), processing (remove stop words) and exploration (tokenization, stemming and lemming), feature engineering (language processing), modeling, and optimization

Provide 3 examples of real-world NLP applications.

1. Sentiment analysis of Amazon reviews, Alexa voice recognition and assistant, and chatbots.