import nltk

from nltk.corpus import stopwords

from nltk.tokenize import word\_tokenize

from nltk import pos\_tag

from collections import Counter

# Download required resources once

nltk.download('punkt')

nltk.download('stopwords')

nltk.download('averaged\_perceptron\_tagger')

# Function to process text

def process\_text(text):

    # Convert to lowercase and split into words

    tokens = word\_tokenize(text.lower())

    print("Tokens:", tokens)

    # Count word frequency

    freq = Counter(tokens)

    print("Word Frequency:", freq)

    # Remove common English stopwords

    stop\_words = set(stopwords.words('english'))

    filtered = [word for word in tokens if word not in stop\_words]

    print("Filtered Tokens:", filtered)

    # Part-of-speech tagging (noun, verb, etc.)

    tagged = pos\_tag(filtered)

    print("POS Tagged Tokens:", tagged)

# Main

if \_\_name\_\_ == "\_\_main\_\_":

    sentence = input("Enter a sentence: ")

    process\_text(sentence)