**ASSIGNMENT 1**

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**Program:**

import requests

from collections import Counter

class avgtxt():

    def average\_word\_length(text):

        words = text.split()

        total\_length = sum(len(word) for word in words)

        num\_words = len(words)

        if num\_words == 0:

            return 0

        else:

           return total\_length / num\_words

    # Example usage:

    text = input("Enter the text1: ")

    avg\_length = average\_word\_length(text)

    print("Average word length:", avg\_length)

class counttxt():

    def top\_three\_words(text1):

        words = text1.split()

        word\_counts = Counter(words)

        top\_three = word\_counts.most\_common(3)

        return top\_three

    # Example usage:

    text1 = input("Enter the text2: ")

    top\_three = top\_three\_words(text1)

    print("Top three most frequent words:")

    for word, count in top\_three:

        print(word, "-", count)

def get\_synonyms(word):

    url = f"https://api.datamuse.com/words?rel\_syn={word}"

    response = requests.get(url)

    if response.status\_code == 200:

        data = response.json()

        return [item['word'] for item in data]

    else:

        print("Failed to retrieve synonyms.")

        return []

def suggest\_replacements(text2, overused\_words):

    suggested\_replacements = {}

    for word in overused\_words:

        synonyms = get\_synonyms(word)

        if synonyms:

            suggested\_replacements[word] = synonyms[0]  # Choose the first synonym as a replacement

        else:

            suggested\_replacements[word] = "[No synonyms found]"

    return suggested\_replacements

# Example usage:

text2 = input("Enter the text3: ")

input\_words = input("Enter the over used words: ")

overused\_words = input\_words.split()

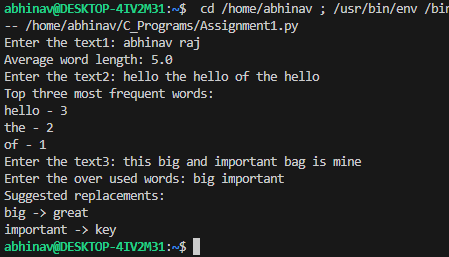
replacements = suggest\_replacements(text2, overused\_words)

print("Suggested replacements:")

for word, replacement in replacements.items():

    print(f"{word} -> {replacement}")

**Output:**

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