1. **Write a program that demonstrates how to perform morphological analysis using the NLTK library in Python.**

**Aim:**To write a program that demonstrates how to perform morphological analysis using the NLTK library in Python.

**Code:**

import re

def simple\_tokenize(text):

return re.findall(r'\b\w+\b', text)

def simple\_stem(word):

suffixes = ('ing', 'ed', 'es', 's')

for suffix in suffixes:

if word.endswith(suffix):

return word[:-len(suffix)]

return word

text = input("Enter a text: ")

words = simple\_tokenize(text)

print("Original Words:", words)

stemmed\_words = [simple\_stem(word) for word in words]

print("Stemmed Words:", stemmed\_words)

**Input:**

**Enter a text:** The cats are walking towards the playground.

**Output:**

**Original Words**: ['The', 'cats', 'are', 'walking', 'towards', 'the', 'playground']

**Stemmed Words:** ['The', 'cat', 'are', 'walk', 'toward', 'the', 'playground']

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