**PRACTICAL NO. 2**

**CODE:**

import nltk

from nltk.stem import WordNetLemmatizer

from nltk.corpus import wordnet

lemmatizer = WordNetLemmatizer()

def nltk2wn\_tag(nltk\_tag):

if nltk\_tag.startswith('J'):

return wordnet.ADJ

elif nltk\_tag.startswith('V'):

return wordnet.VERB

elif nltk\_tag.startswith('N'):

return wordnet.NOUN

elif nltk\_tag.startswith('R'):

return wordnet.ADV

else:

return None

def lemmatize\_sentence(sentence):

nltk\_tagged = nltk.pos\_tag(nltk.word\_tokenize(sentence))

wn\_tagged = map(lambda x: (x[0], nltk2wn\_tag(x[1])), nltk\_tagged)

res\_words = []

for word, tag in wn\_tagged:

if tag is None:

res\_words.append(word)

else:

res\_words.append(lemmatizer.lemmatize(word, tag))

return " ".join(res\_words)

sentence = input()

nltk\_tagged = nltk.pos\_tag(nltk.word\_tokenize(sentence))

result = lemmatize\_sentence(sentence)

print(result)

result = nltk.word\_tokenize(result)

for i, j in zip(nltk\_tagged, result):

print(i , " : ", j)

**OUTPUT:**

