import nltk

from nltk.tokenize import word\_tokenize

from nltk.stem import WordNetLemmatizer

from nltk.stem import PorterStemmer

# get token

text = "There is the need for processes on a system to occasionally request services from the kernel. Some older operating systems had a rendezvous style of providing these services - the process would request a service and wait at a particular point, until a kernel task came along and serviced the request on behalf of the process."

print(text,'\n')

words = word\_tokenize(text)

print(words,'\n')

# lemmatizer

lemmatizer = WordNetLemmatizer()

for word in words:

print(word + ":" + lemmatizer.lemmatize(word),end=" ")

print('\n')

# Stemmer

stemmer = PorterStemmer()

for word in words:

print(word + " " + stemmer.stem(word),end=" ")

原始数据：There is the need for processes on a system to occasionally request services from the kernel. Some older operating systems had a rendezvous style of providing these services - the process would request a service and wait at a particular point, until a kernel task came along and serviced the request on behalf of the process.

词汇获取：

['There', 'is', 'the', 'need', 'for', 'processes', 'on', 'a', 'system', 'to', 'occasionally', 'request', 'services', 'from', 'the', 'kernel', '.', 'Some', 'older', 'operating', 'systems', 'had', 'a', 'rendezvous', 'style', 'of', 'providing', 'these', 'services', '-', 'the', 'process', 'would', 'request', 'a', 'service', 'and', 'wait', 'at', 'a', 'particular', 'point', ',', 'until', 'a', 'kernel', 'task', 'came', 'along', 'and', 'serviced', 'the', 'request', 'on', 'behalf', 'of', 'the', 'process', '.']

词形还原：

There:There is:is the:the need:need for:for processes:process on:on a:a system:system to:to occasionally:occasionally request:request services:service from:from the:the kernel:kernel .:. Some:Some older:older operating:operating systems:system had:had a:a rendezvous:rendezvous style:style of:of providing:providing these:these services:service -:- the:the process:process would:would request:request a:a service:service and:and wait:wait at:at a:a particular:particular point:point ,:, until:until a:a kernel:kernel task:task came:came along:along and:and serviced:serviced the:the request:request on:on behalf:behalf of:of the:the process:process .:.

词干还原：

There there is is the the need need for for processes process on on a a system system to to occasionally occasion request request services servic from from the the kernel kernel . . Some some older older operating oper systems system had had a a rendezvous rendezv style style of of providing provid these these services servic - - the the process process would would request request a a service servic and and wait wait at at a a particular particular point point , , until until a a kernel kernel task task came came along along and and serviced servic the the request request on on behalf behalf of of the the process process . .

分析：词汇获取的分割完整，但是部分词在词性还原时不能真正还原为原来的词，如occasionally，词干还原的效果部分词也不好，如serviced--- servic