# Write a Python program to compute following operations on String:

# a) To display word with the longest length

# b) To determines the frequency of occurrence of particular character in the string

# c) To check whether given string is palindrome or not

# d) To display index of first appearance of the substring

# e) To count the occurrences of each word in a given string.

# a) To display word with the longest length

sentence = input("Enter string: ")

longest = max(sentence.split(), key=len)

print("Longest word is: ", longest)

print("And its length is: ", len(longest))

# b) To determines the frequency of occurrence of particular character in the string

# using naive method to get count of each element in string

all\_freq = {}

for i in sentence:

if i in all\_freq:

all\_freq[i] += 1

else:

all\_freq[i] = 1

# printing result

print("Count of all characters in sentence is :\n "

+ str(all\_freq))

# c) To check whether given string is palindrome or not

text="mom"

print("Given text is "+text)

rev=reversed(text)

if list(text)==list(rev):

print("its a palindrome")

else:

print("its not a palindrome")

# d) To display index of first appearance of the substring

sub\_str1 =str(input("Enter word"))

print("index of first appearance of the substring "+sub\_str1+" is")

print(sentence.find(sub\_str1))

#check if Substring found or not.

if(sentence.find(sub\_str1)==-1):

print("Substring Not Found")

else:

print("Substring found")

# e) To count the occurrences of each word in a given string.

print("Following are the count the frequency of each word in a given string")

def freq(sentence):

# break the string into list of words

sentence = sentence.split()

str2 = []

# loop till string values present in list str

for i in sentence:

# checking for the duplicacy

if i not in str2:

# insert value in str2

str2.append(i)

for i in range(0, len(str2)):

# count the frequency of each word(present in str2) in sentence and print

print('count of frequency', str2[i], 'is :', sentence.count(str2[i]))

def main():

# call freq function

freq(sentence)

main() # call main function