**Group A:Assignment No 2**

Write a Python program to compute following operations on String:

1. To display word with the longest length
2. To determines the frequency of occurrence of particular character in the string
3. To check given string is palindrome or not
4. To display index of first substring

To count the occurrences of each word in string

**# a) To display word with the longest length**

sentence = input("Enter sentence: ")

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="malayalam"

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()