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# Class: SE COMP2

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Group A-5

"""

Write a python program to compute following operations on string:

a) To display word with the longest length

b) To determine 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

"""

def display\_longest\_word():

string = input("Enter the main string: ")

i = 0

max\_word = ""

while i < len(string):

words = ""

while string[i] != ' ':

words += string[i]

i = i + 1

if i == len(string):

break

if i != len(string):

while string[i] == " ":

i += 1

if len(max\_word) < len(words):

max\_word = words

print("Word with longest length is: ", max\_word)

print("Length of longest string is: ", len(max\_word))

return max\_word

def char\_frequency():

string = str(input("Enter the main string: "))

char = str(input("Enter the character: "))

count = 0

for i in range(len(string)):

if string[i] == char:

count += 1

print("Frequency of character is: ", count)

return count

def check\_palindrome():

string = str(input("Enter the string: "))

b = 0

e = len(string) - 1

while b < e:

if string[b] != string[e]:

break

else:

b += 1

e -= 1

if b < e:

print("The string is not a palindrome")

else:

print("The string is a palindrome")

return

def first\_apperance():

string = str(input("Enter the main string: "))

substring = str(input("Enter the substring: "))

L1 = len(string)

L2 = len(substring)

if L1 >= L2:

for i in range(L1 - L2 + 1):

flag = 1

for j in range(L2):

if string[i + j] != substring[j]:

flag = 0

break

if flag == 1:

print("First appearance of the substring is at index: ", i)

break

if flag == 0:

print("Substring is not found")

else:

print("Substring is greater than main string")

def count\_occurences():

string = str(input("Enter the main string: "))

i = 0

word\_list = []

count = []

while i < len(string):

words = ""

while string[i] != ' ':

words += string[i]

i = i + 1

if i == len(string):

break

if i != len(string):

while string[i] == ' ':

i += 1

if len(word\_list) == 0:

word\_list.append(words)

count.append(1)

else:

flag = 1

for j in range(len(word\_list)):

if word\_list[j] == words:

count[j] += 1

flag = 0

break

if flag == 1:

word\_list.append(words)

count.append(1)

for i in range(len(word\_list)):

print(word\_list[i], ":", count[i])

def main():

while True:

print("\t1: To display word with longest length")

print("\t2: To determine the frequency of occurrence of particular character in the string")

print("\t3: To check whether given string is palindrome or not")

print("\t4: To display index of first appearance of the substring")

print("\t5: To count the occurrences of each word in a given string")

print("\t6: Exit")

ch = int(input("Enter your choice: "))

if ch >= 6:

print("End of program")

break

elif ch == 1:

display\_longest\_word()

elif ch == 2:

char\_frequency()

elif ch == 3:

check\_palindrome()

elif ch == 4:

first\_apperance()

elif ch == 5:

count\_occurences()

main()

OUTPUT :

/home/admin1/PycharmProjects/pythonProject3/.venv/bin/python /home/admin1/.config/JetBrains/PyCharmCE2024.2/scratches/scratch\_4.py

1: To display word with longest length

2: To determine the frequency of occurrence of particular character in the string

3: To check whether given string is palindrome or not

4: To display index of first appearance of the substring

5: To count the occurrences of each word in a given string

6: Exit

Enter your choice: 1

Enter the main string: Data Structure

Word with longest length is: Structure

Length of longest string is: 9

1: To display word with longest length

2: To determine the frequency of occurrence of particular character in the string

3: To check whether given string is palindrome or not

4: To display index of first appearance of the substring

5: To count the occurrences of each word in a given string

6: Exit

Enter your choice: 2

Enter the main string: madam

Enter the character: m

Frequency of character is: 2

1: To display word with longest length

2: To determine the frequency of occurrence of particular character in the string

3: To check whether given string is palindrome or not

4: To display index of first appearance of the substring

5: To count the occurrences of each word in a given string

6: Exit

Enter your choice: 3

Enter the string: madam

The string is a palindrome

1: To display word with longest length

2: To determine the frequency of occurrence of particular character in the string

3: To check whether given string is palindrome or not

4: To display index of first appearance of the substring

5: To count the occurrences of each word in a given string

6: Exit

Enter your choice: 4

Enter the main string: butterfly

Enter the substring: butter

First appearance of the substring is at index: 0

1: To display word with longest length

2: To determine the frequency of occurrence of particular character in the string

3: To check whether given string is palindrome or not

4: To display index of first appearance of the substring

5: To count the occurrences of each word in a given string

6: Exit

Enter your choice: 5

Enter the main string: malayalam

malayalam : 1

1: To display word with longest length

2: To determine the frequency of occurrence of particular character in the string

3: To check whether given string is palindrome or not

4: To display index of first appearance of the substring

5: To count the occurrences of each word in a given string

6: Exit

Enter your choice: 6

End of program

Process finished with exit code 0