TASK-4

1)s = input("Enter a sentence")

count1=0

count2=0

count3=0

count4=0

count5=0

for i in s:

if (i=='a'):

count1 = count1+1

print(count1,'a')

if (i=='e'):

count2 = count2+1

print(count2,'e')

if (i=='o'):

count3 = count3+1

print(count3,'o')

if (i=='u'):

count4 = count4+1

print(count4,'u')

if (i=='i'):

count5 = count5+1

print(count4,'i')

count6 = count1+count2+count3+count4+count5

print(count6)

2)rows = 6

num = 1

for i in range(1, rows + 1):

for j in range(1, rows - i + 1):

print(" ", end=" ")

for k in range(1, i + 1):

if num < 19:

print(" ", end=" ")

print(num, end=" ")

num += 1

print()

3)s = input("Enter a string ")

result=" "

for i in s:

if i not in['a','e','i','o','u']:

result +=i

print(result)

4)s = input("Enter a string ")

unchar = []

number = 0

for i in s:

if i not in unchar:

unchar.append(i)

number = len(unchar)

print(number)

5)input\_string = input("Enter a string: ")

input\_string = input\_string.replace(" ", "").lower()

start\_index = 0

end\_index = len(input\_string) - 1

is\_palindrome = True

while start\_index < end\_index:

if input\_string[start\_index] != input\_string[end\_index]:

is\_palindrome = False

break

start\_index += 1

end\_index -= 1

if is\_palindrome:

print("The string is a palindrome.")

else:

print("The string is not a palindrome.")

6)string1 = input("Enter the first string: ")

string2 = input("Enter the second string: ")

max\_length = 0

end\_position = 0

m = len(string1)

n = len(string2)

table = [[0] \* (n + 1) for \_ in range(m + 1)]

for i in range(1, m + 1):

for j in range(1, n + 1):

if string1[i - 1] == string2[j - 1]:

table[i][j] = table[i - 1][j - 1] + 1

if table[i][j] > max\_length:

max\_length = table[i][j]

end\_position = i

else:

table[i][j] = 0

start\_position = end\_position - max\_length

longest\_substring = string1[start\_position:end\_position]

if longest\_substring:

print("The longest common substring is:", longest\_substring)

else:

print("There is no common substring.")

7)input\_string = input("Enter a string: ")

most\_frequent\_char = ""

max\_count = 0

for char in input\_string:

count = 0

for c in input\_string:

if c == char:

count += 1

if count > max\_count:

max\_count = count

most\_frequent\_char = char

print("Most frequent character:", most\_frequent\_char)

8)string1 = input("Enter the first string: ").replace(" ", "").lower()

string2 = input("Enter the second string: ").replace(" ", "").lower()

string1 = string1.replace(" ", "").lower()

string2 = string2.replace(" ", "").lower()

if len(string1) != len(string2):

print("The strings are not anagrams.")

else:

sorted\_str1 = sorted(string1)

sorted\_str2 = sorted(string2)

if sorted\_str1 == sorted\_str2:

print("The strings are anagrams.")

else:

print("The strings are not anagrams.")

9)s = input("Enter a string")

count =0

for i in s:

if (i==' '):

count = count+1

print(count+1) 1)s = input("Enter a sentence")

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count4=0

count5=0

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print(count3,'o')

if (i=='u'):

count4 = count4+1

print(count4,'u')

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print(count6)

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for char in input\_string:

count = 0

for c in input\_string:

if c == char:

count += 1

if count > max\_count:

max\_count = count

most\_frequent\_char = char

print("Most frequent character:", most\_frequent\_char)

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