

Python 22-23 / Minia / Python

lab1-Hager haron

## 1- Install python interpreter on your machine.

Done

## 2- Write a program that counts up the number of vowels [a, e, i, o, u] contained in the string.

```
vowels= ['a','e','r','o','u']

Pvowels = input ("Legnth of vowels = ", len(vowels), "\nValues of vowels = ")

for Pvowels in vowels:
    #Pvowels = str(Pvowels)
    print(str(Pvowels))
```

### Output

Legnth of vowels = 5

Values of vowels =

a

e

r

o

u

### OR

```
usr_input = input("Enter your text ")
def count_vowels(usr_input):
    number_of_vowels = 0
    list_of_vowels = ["a", "e", "i", "o", "u"]
    for char in usr_input:
        if char in list_of_vowels:
            number_of_vowels += 1
    print(f"your string has {str(number_of_vowels)} vowels ! ")
count_vowels(usr_input)
```

### Output

Enter your text >? hager haron

your string has 4 vowels !

### 3 - Fill an array of 5 elements from the user, Sort it in descending and ascending orders then display the output

```
def sort_array(array_user):
    non_sort = array[:]
    non_sort.sort()

    desc_sorted_array = array[:]
    desc_sorted_array.sort()
    print(f"Array in asc order {non_sort}")
    print(f"Array in desc order {desc_sorted_array}")

user_array = list(map(int, input("Please enter your array of numbers: ").split()))
print(user_array)
sort_array(user_array)
```

#### Output

Please enter your array of numbers: >? 5 6 9

[5, 6, 9]

Array in asc order [5, 6, 9]

Array in desc order [5, 6, 9]

### 4- Write a program that prints the number of times the string 'iti' occurs in anystring.

```
StudentTrack = "Hager is a student at iti, studies tarck web at iti"
print(StudentTrack.count('iti'))
```

#### Output

2

Anther answer (output error)

```
#---true-----
#if type(Chk_iti)==str:
#    print(Chk_iti)
#-----

for Chk_iti in str:
    # if Chk_iti == Chk_iti:
    if Chk_iti in str:
        Chk_iti=Chk_iti*2
    print(Chk_iti.count('iti'))
```

**5- Write a program that remove all vowels from the input word and generate a brief version of it.**

```
textafter = ""
User_text = input('Enter your text:')
vowels_org = ['a', 'e', 'i', 'o', 'u', 'A', 'E', 'I', 'O', 'U']
for x in User_text:
    if x not in vowels_org:
        textafter = textafter + x
print("\n Text With the Vowels =", User_text)
text = textafter
print("\nText after brief the Vowels =", text)
```

**Output**

Enter your text:>? hager

Text With the Vowels = hager

Text after brief the Vowels = hgr

**6-Write a program that prints the locations of "i" character in anystring you added.**

```
text = 'Write a program that build a Mario pyramid like below'
for index, serl in enumerate(text):
    if serl == 'i':
        print('the index of (i) at the esntence =', index)
```

**Output**

the index of (i) at the esntence = 2

the index of (i) at the esntence = 23

the index of (i) at the esntence = 32

the index of (i) at the esntence = 40

the index of (i) at the esntence = 44

```
serl = 'i'
textQ6 = 'Write a program that build a Mario pyramid like below'
catchl = textQ6.index('i')
print(catchl)
```

**Output**

2

**7 - Ask the user for his name then confirm that he has entered his name (not an empty string/integers). then proceed to ask him for his email and print all this data**

```
import re

def valid_name_email(username):
    try:
        int(username)
        print("please enter a valid name")
    except:
        while len(username) <= 0:
            print("enter a valid name ")
            username = input("please enter your name: ")
        else:
            email = input("Please enter your Email: ")
            regex = '^[a-z][a-z0-9]+[\._]?[a-z0-9]+[@]\w+[.]\w{2,3}$'
            if (re.search(regex, email)):
                print(f"This is your name {username}, and this is your email {email}")
            else:
                print("Invalid Email")
                valid_name_email(username)
```

```
username = input("please enter your name: ")
```

```
username = username.lower()
```

```
valid_name_email(username)
```

**Output**

```
please enter your name: >? hager
```

```
Please enter your Email: >? rfd@uiu
```

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### 8-Write a program that build a Mario pyramid like below:

```
def starprym():  
    for i in range(0, 4):  
        for j in range(0, i + 1):  
            print("* ", end="")  
        print("\n")  
starprym()
```

OR

```
for i in range(0,5,+1):  
    print("* " * i)
```

output

```
*  
* *  
* * *  
* * * *
```