Untitled

August 24, 2021

1 1. Write a Python program to test whether a passed letter is a vowel or not.

[1]:
```
letter = input("Enter a letter : ")

vowels = ["a" , "e" , "i" , "o" , "u"]

if(letter in vowels):
    print("its a vowel")
else:
    print("its not a vowel")
```

```
Enter a letter : a
its a vowel
```

2 2. Write a Python program to print out a set containing all the colors from color_list_1 which are not present in color_list_2.

color_list_1 = set([“White”, “Black”, “Red”])

color_list_2 = set([“Red”, “Green”])

[3]:
```
color_list_1 = set(["White", "Black", "Red"])
color_list_2 = set(["Red", "Green"])

print(color_list_1.difference(color_list_2))
```

```
{'Black', 'White'}
```

3 3. Write a Python program to solve (x + y) * (x + y).

[4]:
```
x = int(input("x : "))
y = int(input("y : "))

z = (x + y) * (x + y)

print(z)
```

```
x : 10
y : 20
900
```

4 4. Write a Python program to calculate the sum of the digits in an integer.

[5]:
```
value = int(input("Enter a integer : "))

sum = 0
for i in str(value):
    sum = sum + int(i)

print(sum)
```

```
Enter a integer : 123
6
```

5 5. Write a Python program to calculate the length of a string.

[6]:
```
myString = input("Enter a String : ")
print("Length  = " , len(myString))
```

```
Enter a String : harsh
Length  =  5
```

6 6. Write a Python program to get a single string from two given strings, separated by a space and swap the first two characters of each string.

Sample String : 'abc', 'xyz'

Expected Result : 'xyc abz'

[9]:
```
string1 = input("String 1 : ")
string2 = input("String 2 : ")

def mixChar(string1 , string2 , index = 0):
    newString1 = string1[:index] + string2[index] + string1[index+1: ]
    newString2 = string2[:index] + string1[index] + string2[index+1: ]

    return newString1 , newString2

string1 , string2 = mixChar(string1 , string2)
```

```
print(string1 + " " , string2)
```

```
String 1 : harsh
String 2 : native
narsh  hative
```

7 7. Write a Python program to remove the n th index character from a nonempty string.

[10]:
```
string = input("Enter string : ")
n = int(input("Enter n : "))

string = string[:n] + string[n+1:]

print(string)
```

```
Enter string : harsh
Enter n : 2
hash
```

8 8. Write a Python script that takes input from the user and displays that input back in upper and lower cases.

[11]:
```
string = input("Enter some string : ")

print("lowercased = " , string.lower())
print("uppercased = " , string.upper())
```

```
Enter some string : harsh
lowercased =  harsh
uppercased =  HARSH
```

9 9. Write a Python function to insert a string in the middle of a string.

[13]:
```
string = input("Enter some string : ")

toInsert = input("Enter some string to insert : ")


# returns only lower integer
middle = len(string) // 2

string = string[:middle] + toInsert + string[middle:]
```

```
print(string)
```

```
Enter some string : harsh
Enter some string to insert : don
hadonrsh
```

10 10. Write a Python program to print the floating numbers upto 2 decimal places with a sign.

[16]:
```
number1 = float(input("Enter number 1 : "))
number2 = float(input("Enter number 2 : "))

print("Formatted Number with sign: " + "{:+.2f}".format(number1))
print("Formatted Number with sign: " + "{:+.2f}".format(number2))
```

```
Enter number 1 : 10.24986
Enter number 2 : -12.156413
Formatted Number with sign: +10.25
Formatted Number with sign: -12.16
```

[21]:
```
# or
number1 = float(input("Enter number 1 : "))
number2 = float(input("Enter number 2 : "))

def formatNumber(number):
    number = round(number , 2)

    if(number >= 0):
        number = "+" + str(number)
    else:
        # - sign is auto added
        number = str(number)

    return number

print("Formatted Number with sign: {}".format(formatNumber(number1)))
print("Formatted Number with sign: {}".format(formatNumber(number2)))
```

```
Enter number 1 : 10.214654
Enter number 2 : -12.14
Formatted Number with sign: +10.21
Formatted Number with sign: -12.14
```