## Day 6 of Python Assignment Answers -16. Write a python program to count the special characters in string?

```
# Prompt the user to enter a string
string = input("Enter a string: ")
# Initialize a variable to keep track of the number of special characters
count = 0
# Loop through each character in the string
for char in string:
    # Check whether the character is not alphanumeric and not a space
    if not char.isalnum() and char != " ":
        # If the character is a special character, increment the count variable
        count += 1
# Print the number of special characters found
print("There are", count, "special characters in the string.")
```



The program starts by prompting the user to enter a string and storing it in the string variable. It then initializes a variable called count to keep track of the number of special characters found.

The program then enters a for loop that iterates through each character in the string. For each character, the program checks whether it is not alphanumeric and not a space. If the character meets these criteria, the program increments the count variable.

Finally, the program prints out the number of special characters found by concatenating the string "There are", the value of count, and the string "special characters in the string." using the print() function.



## 17. Write a python program to count the number in string?

```
# Prompt the user to enter a string
string = input("Enter a string: ")
# Initialize a variable to keep track of the number of digits
count = 0
# Loop through each character in the string
for char in string:
    # Check whether the character is a digit or a decimal point
    if (char.isdigit() or char == '.'):
        # If the character is a digit or a decimal point, increment the count variable
        count += 1
# Print the number of digits found
print("There are", count, "digits (including decimals) in the string.")
```



The program starts by prompting the user to enter a string and storing it in the string variable. It then initializes a variable called count to keep track of the number of digits found.

The program then enters a for loop that iterates through each character in the string. it checks for both digits and decimal points in the if statement inside the loop. If the character is a digit or a decimal point, it increments the count variable.

Finally, the program prints out the number of digits found by concatenating the string "There are", the value of count, and the string "digits in the string." using the print() function.

If you input a decimal point in the value like 3.8 it counts it as 3 numbers, if you need proper count of digits check my github link attached there it will explain clearly.





## 18. Write a python program to remove the vowels in a string?

```
# Prompt the user to enter a string
string = input("Enter a string: ")
# Define the vowels that need to be removed
vowels = "aeiouAEIOU"
# Create an empty string that will store the modified string
new string = ""
# Loop through each character in the input string
for char in string:
    # Check whether the character is a vowel
    if char not in vowels:
        # If the character is not a vowel, add it to the new string
       new_string += char
# Print the modified string without vowels
print("String with vowels removed:", new_string)
```

- 1. Prompts the user to enter a string and stores it in the string variable.
- 2. Defines a string vowels that contains all vowels, both uppercase and lowercase, that need to be removed from the input string.
- 3. Creates an empty string new\_string that will store the modified string with vowels removed.
- 4. Begins a for loop that will iterate through each character in the input string string.
- 5. Checks whether the current character char is a vowel by using the not in operator to check whether it is not in the vowels string.
- 6.If the character is not a vowel, it is added to the new\_string variable.
- 7. Once the loop is finished, it prints the modified string without vowels.