

Technical Questions Answer.

Problem 1: Program to count occurrences of a given character in a string.

Count character 'e' in the below string.

Input "geeksforgeeks".

Output: 4

Count character '3' in the below string.

Input "abccdefgaa."

Output : 3

```
In [1]: # Function for Count the Character in String
def count_char(input_string, target_character):
    count = 0
    for char in input_string:
        if char == target_character:
            count += 1
    return count

# Example 1
input_string1 = "geeksforgeeks"
target_character1 = 'e'
result1 = count_char(input_string1, target_character1)
print("Input : ", input_string1)
print("Charater : ",target_character1)
print("Output : ",result1)

print("-----")

# Example 2
input_string2 = "abccdefgaa."
target_character2 = '3'
result2 = count_char(input_string2, target_character2)
print("Input : ", input_string2)
print("Charater : ",target_character2)
print("Output : ",result2)
```

Input : geeksforgeeks

Charater : e

Output : 4

Input : abccdefgaa.

Charater : 3

Output : 0

Problem 2: Determine whether a given string is Palindrome

A string “madam” is a palindromic string because it reads the same forwards and backward.

Input: “anna”

Output: true

Input: “India”

Output: false

```
In [2]: def is_palindrome(input_string):
        w = ""
        for i in input_string:
            w = i + w

        if (input_string == w):
            result = "Yes"
        else:
            result = "No"

        return result

# Example 1
input_string1 = "anna"
result1 = is_palindrome(input_string1)
print("Input : ",input_string1)
print("output : ", result1)

print("-----")
# Example 2
input_string2 = "India"
result2 = is_palindrome(input_string2)
print("Input : ",input_string2)
print("output : ", result2)
```

Input : anna

output : Yes

Input : India

output : No

Problem 3: Biggest and smallest number in an array

Write a program to print the biggest and smallest number in the array.

Input: arr[] = {1, 2, 3, 4, 5}

Output: Maximum is: 5

Minimum is: 1

Input: arr[] = {5, 3, 7, 4, 2}

Output: Maximum is: 7

Minimum is: 2

```
In [3]: # Example 1
arr1 = [1, 2, 3, 4, 5]
max1 = max(arr1)
min1 = min(arr1)
print("Input :",arr1)
print("Output : ")
print("      Maximum is:",max1)
print("      Minimum is:",min1)

print("-----")
# Example 2
arr2 = [5, 3, 7, 4, 2]
max2 = max(arr2)
min2 = min(arr2)
print("Input :",arr2)
print("Output : ")
print("      Maximum is:",max2)
print("      Minimum is:",min2)
```

Input : [1, 2, 3, 4, 5]

Output :

Maximum is: 5

Minimum is: 1

Input : [5, 3, 7, 4, 2]

Output :

Maximum is: 7

Minimum is: 2

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Problem 4: Swap two Strings Without Using any Third Variable

Input: a = "Hello", b = "World".

Output: Strings after swap: a = World and b = Hello

```
In [4]: # Input strings
a = "Hello"
b = "World"

print("Before Swap ")
print("a =",a)
print("b= ",b)

print("-----")

# Swapping without using a third variable
a, b = b, a

# Print the result
print("After Swap")
print("a =",a)
print("b =",b)
```

Before Swap

a = Hello

b= World

After Swap

a = World

b = Hello

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Problem 5: Swap two numbers without using a temporary variable

Input: integer a = "10", b = "50".

Output: Strings after swap: a = 50 and b = 10

```
In [3]: def swap_numbers(a, b):  
        a,b=b,a  
  
        return a, b  
  
        # Example  
        a = 10  
        b = 50  
  
        print("Before Swap ")  
        print("a =", a)  
        print("b= ", b)  
  
        print("-----")  
  
        # Swapping using a third variable  
        a, b = swap_numbers(a, b)  
  
        # Print the result  
        print("After Swap")  
        print("a =", a)  
        print("b =", b)
```

Before Swap

a = 10

b= 50

After Swap

a = 50

b = 10

In []: