**CTA 2 String of C++**

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# **Pseudocode for String Cpp:**

Function isSafeInput(input: string) -> boolean

// Define a regular expression pattern to check for safe input

pattern = "^[A-Za-z0-9 ]+$"

return regex\_match(input, pattern)

Function getValidInput() -> string

userInput = ""

Repeat

// Prompt the user to enter a string

Print "Enter the string (up to 255 characters): "

// Read a line of input from the user

userInput = ReadLine()

// Validate the input

If userInput.length() > 255

Print "Invalid amount of Characters. Please enter up to 255 characters."

Print "Enter the string: " // Reprompt for input

Else If Not isSafeInput(userInput)

Print "Invalid Characters. Please enter only alphanumeric characters."

Print "Enter the string: " // Reprompt for input

Else

Exit Loop // Input is valid, exit the loop

Until Loop

Return userInput

Function main()

For i = 1 to 3

// Print the iteration number to show the user which iteration they are on

Print "Iteration " + i

// Prompt the user to enter the first string

Print "Enter the first string up to 255 characters: "

firstString = getValidInput()

// Prompt the user to enter the second string

Print "Enter the second string up to 255 characters: "

secondString = getValidInput()

// Concatenate the two strings

concatenatedString = firstString + secondString

// Print the concatenated string

Print "Final String: " + concatenatedString

End For

Exit Program // End of main needed for C++ programs to compile successfully

# **Figures Section**

## **Figure 1.**

Execution stringConcate handling Errors.

A screen shot of a computer screen

Description automatically generated

## **Figure 2**

Three Iterations of stringConcate

A screenshot of a computer

Description automatically generated

## **Figure 3**

GitHub Repo

A screenshot of a computer

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