



String Operations

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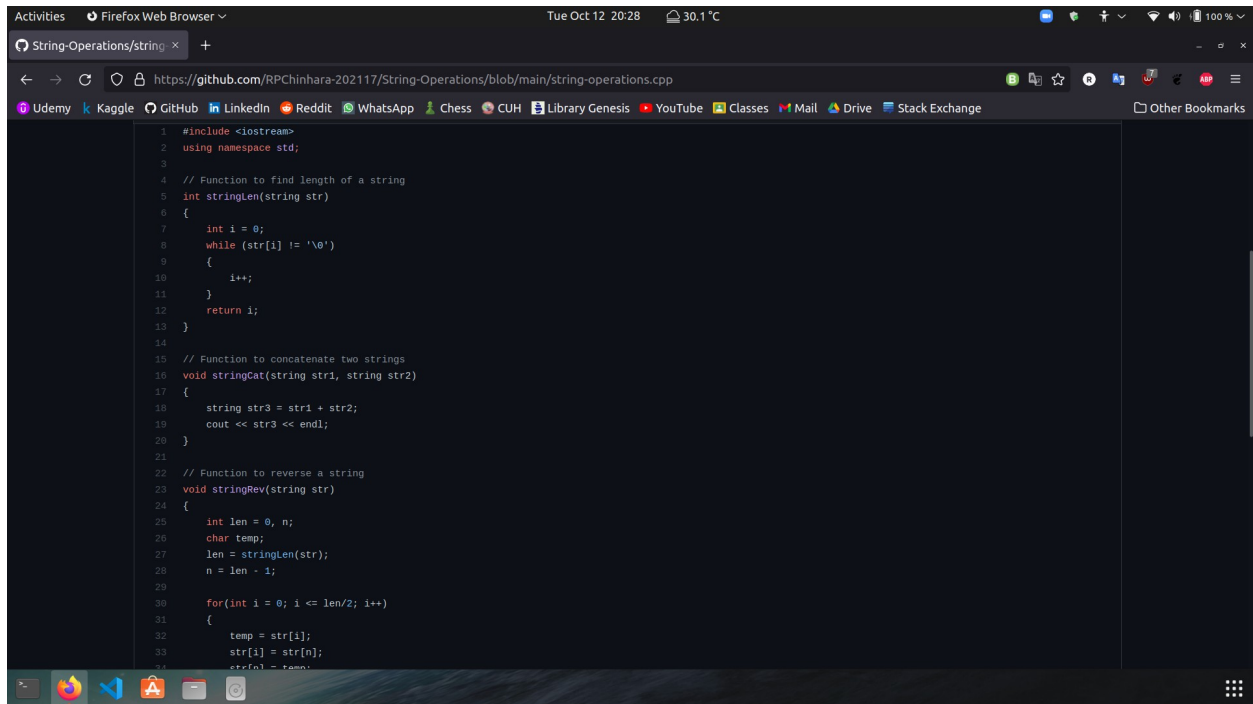
Overview

WAP to implement the various operations on string such as

- a) length of string
- b) concatenation
- c) reverse a string
- d) copy a string

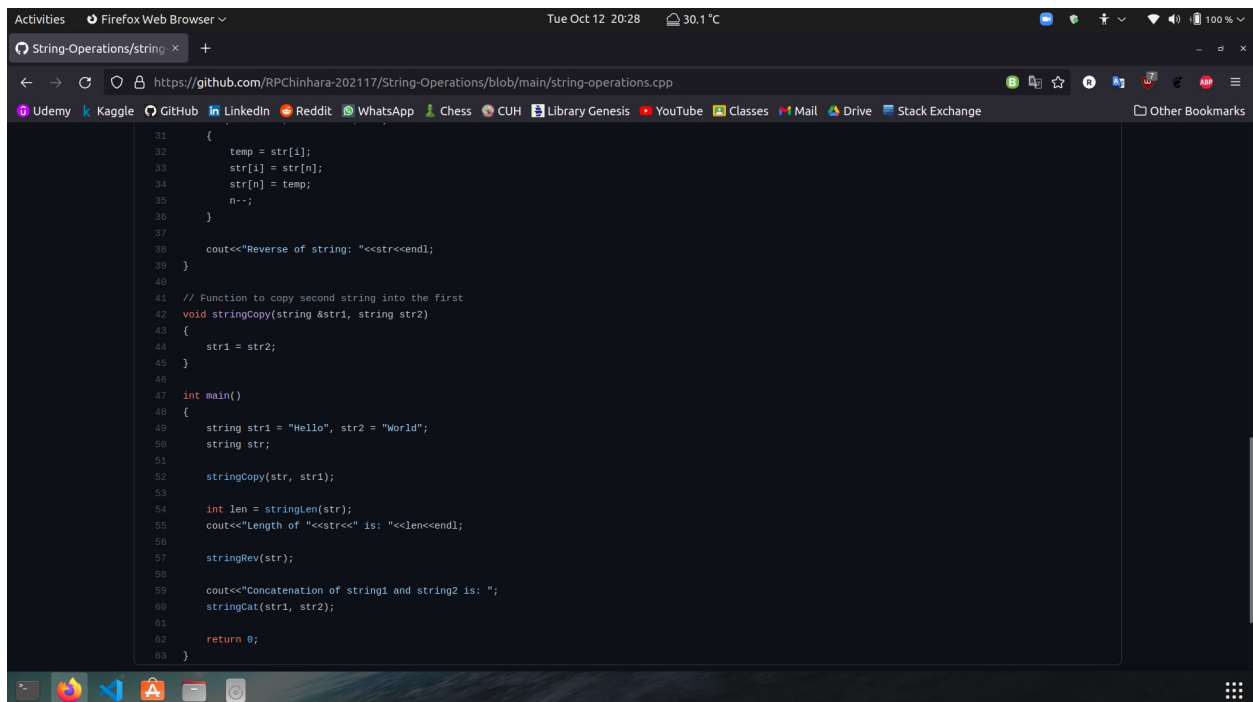
Here in this problem, you need to develop 4 functions which are meant to perform the given operations.

Code



The screenshot shows a code editor with a dark theme. The browser address bar displays the URL `https://github.com/RPChinhara-202117/String-Operations/blob/main/string-operations.cpp`. The code in the editor is as follows:

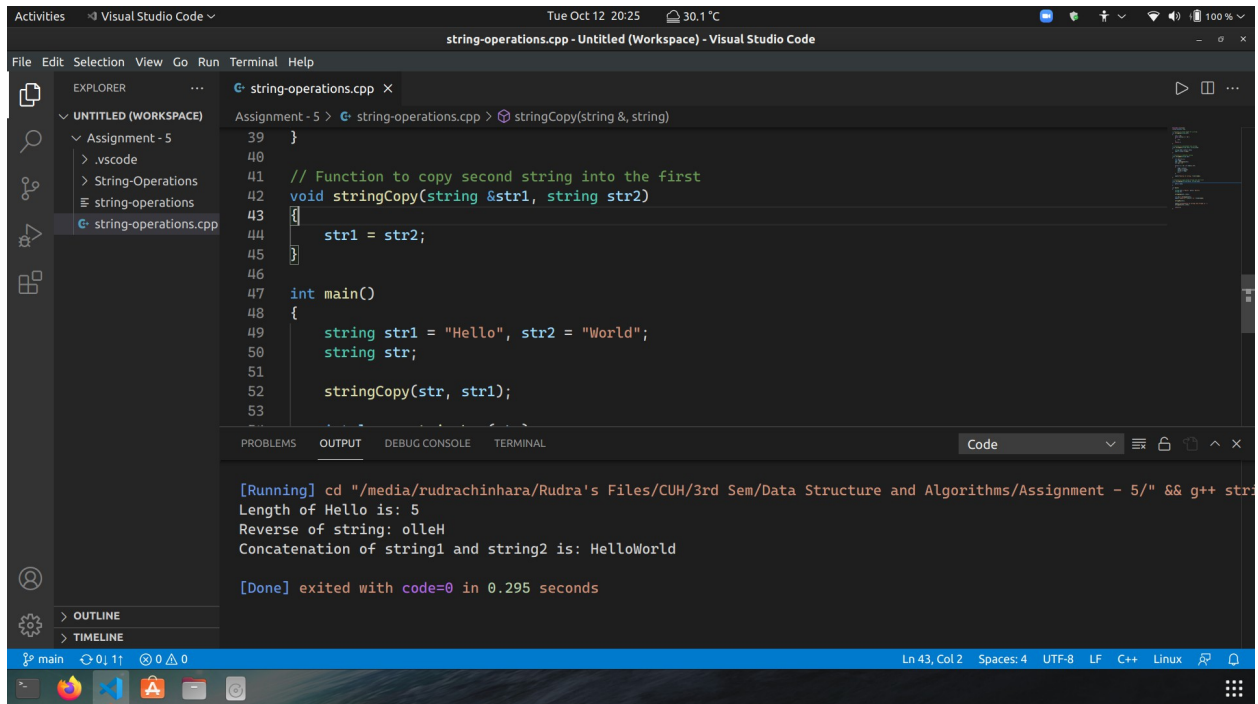
```
1 #include <iostream>
2 using namespace std;
3
4 // Function to find length of a string
5 int stringLen(string str)
6 {
7     int i = 0;
8     while (str[i] != '\0')
9     {
10         i++;
11     }
12     return i;
13 }
14
15 // Function to concatenate two strings
16 void stringCat(string str1, string str2)
17 {
18     string str3 = str1 + str2;
19     cout << str3 << endl;
20 }
21
22 // Function to reverse a string
23 void stringRev(string str)
24 {
25     int len = 0, n;
26     char temp;
27     len = stringLen(str);
28     n = len - 1;
29
30     for(int i = 0; i <= len/2; i++)
31     {
32         temp = str[i];
33         str[i] = str[n];
34         str[n] = temp;
```



The screenshot shows the same code editor with the second part of the C++ program. The code continues from the previous block:

```
31     {
32         temp = str[i];
33         str[i] = str[n];
34         str[n] = temp;
35         n--;
36     }
37
38     cout<<"Reverse of string: "<<str<<endl;
39 }
40
41 // Function to copy second string into the first
42 void stringCopy(string &str1, string str2)
43 {
44     str1 = str2;
45 }
46
47 int main()
48 {
49     string str1 = "Hello", str2 = "World";
50     string str;
51
52     stringCopy(str, str1);
53
54     int len = stringLen(str);
55     cout<<"Length of "<<str<<" is: "<<len<<endl;
56
57     stringRev(str);
58
59     cout<<"Concatenation of string1 and string2 is: ";
60     stringCat(str1, str2);
61
62     return 0;
63 }
```

Terminal



The screenshot displays the Visual Studio Code interface. The Explorer sidebar on the left shows a workspace with 'Assignment - 5' containing 'string-operations.cpp'. The main editor window shows the code for 'string-operations.cpp' with the following content:

```
39 }
40
41 // Function to copy second string into the first
42 void stringCopy(string &str1, string str2)
43 {
44     str1 = str2;
45 }
46
47 int main()
48 {
49     string str1 = "Hello", str2 = "World";
50     string str;
51
52     stringCopy(str, str1);
53 }
```

The Output window at the bottom shows the execution results:

```
[Running] cd "/media/rudrachinhara/Rudra's Files/CUH/3rd Sem/Data Structure and Algorithms/Assignment - 5/" && g++ str
Length of Hello is: 5
Reverse of string: olleH
Concatenation of string1 and string2 is: HelloWorld

[Done] exited with code=0 in 0.295 seconds
```

The status bar at the bottom indicates the current file is 'main', the cursor is at line 43, column 2, and the file is encoded in UTF-8 with LF line endings.