

String, Substring and Replacement

```
//Aneesh Panchal
//2K20/MC/21

#include<bits/stdc++.h>
using namespace std;

int main()
{
    char str[101],str1[101];
    cout<<"Enter the string: ";
    gets(str);

    cout<<"Enter the substring: ";
    gets(str1);

    int strlen=0,str1len=0;
    while(str[strlen]!='\0'){
        ++strlen;
    }

    while(str1[str1len]!='\0'){
        ++str1len;
    }

    int count=0,index=0;
    for(int i=0;str[i]!='\0';++i)
    {
        count=0;
        index=i;
        if(str[i]==str1[0])
        {
            for(int j=0;j<str1len;++j)
            {
                if(str1[j]==str[i+j]){
                    count=count+1;
                }
            }
            if(count==str1len){
                break;
            }
        }
    }

    if(count==str1len)
        cout<<"Substring present at index "<<index<<endl<<endl;
    else{
        cout<<"Substring not present"<<endl<<endl;
        return 0;
    }

    char replace[101];
```

```

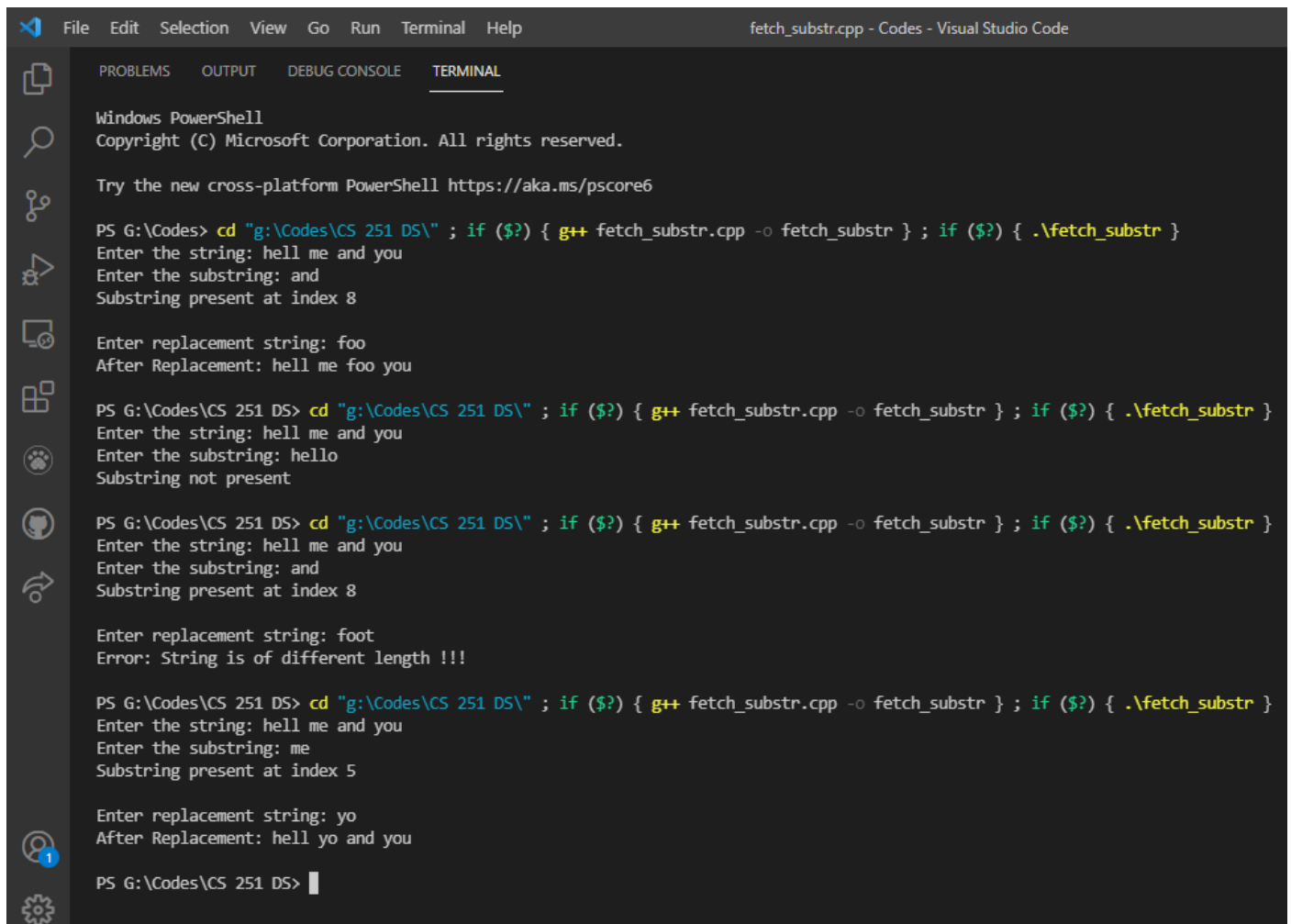
cout<<"Enter replacement string: ";
gets(replace);

int replen=0;
while(replace[replen]!='\0'){
    ++replen;
}

if(replen==count)
{
    for(int i=0;i<replen;++i)
    {
        str[index+i]=replace[i];
    }
    cout<<"After Replacement: "<<str<<endl<<endl;
}
else
    cout<<"Error: String is of different length !!!"<<endl<<endl;

return 0;
}

```



The screenshot shows the Visual Studio Code interface with the 'TERMINAL' tab active. The terminal displays the output of the program 'fetch_substr.cpp' being executed in a Windows PowerShell environment. The program prompts the user for a replacement string and a substring, then checks if the substring is present in the original string and replaces it if found. The output shows three successful replacements and one error due to a mismatch in string lengths.

```

fetch_substr.cpp - Codes - Visual Studio Code

PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL

Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS G:\Codes> cd "g:\Codes\CS 251 DS\" ; if ($?) { g++ fetch_substr.cpp -o fetch_substr } ; if ($?) { .\fetch_substr }
Enter the string: hell me and you
Enter the substring: and
Substring present at index 8

Enter replacement string: foo
After Replacement: hell me foo you

PS G:\Codes\CS 251 DS> cd "g:\Codes\CS 251 DS\" ; if ($?) { g++ fetch_substr.cpp -o fetch_substr } ; if ($?) { .\fetch_substr }
Enter the string: hell me and you
Enter the substring: hello
Substring not present

PS G:\Codes\CS 251 DS> cd "g:\Codes\CS 251 DS\" ; if ($?) { g++ fetch_substr.cpp -o fetch_substr } ; if ($?) { .\fetch_substr }
Enter the string: hell me and you
Enter the substring: and
Substring present at index 8

Enter replacement string: foot
Error: String is of different length !!!

PS G:\Codes\CS 251 DS> cd "g:\Codes\CS 251 DS\" ; if ($?) { g++ fetch_substr.cpp -o fetch_substr } ; if ($?) { .\fetch_substr }
Enter the string: hell me and you
Enter the substring: me
Substring present at index 5

Enter replacement string: yo
After Replacement: hell yo and you

PS G:\Codes\CS 251 DS>

```

String concatenation

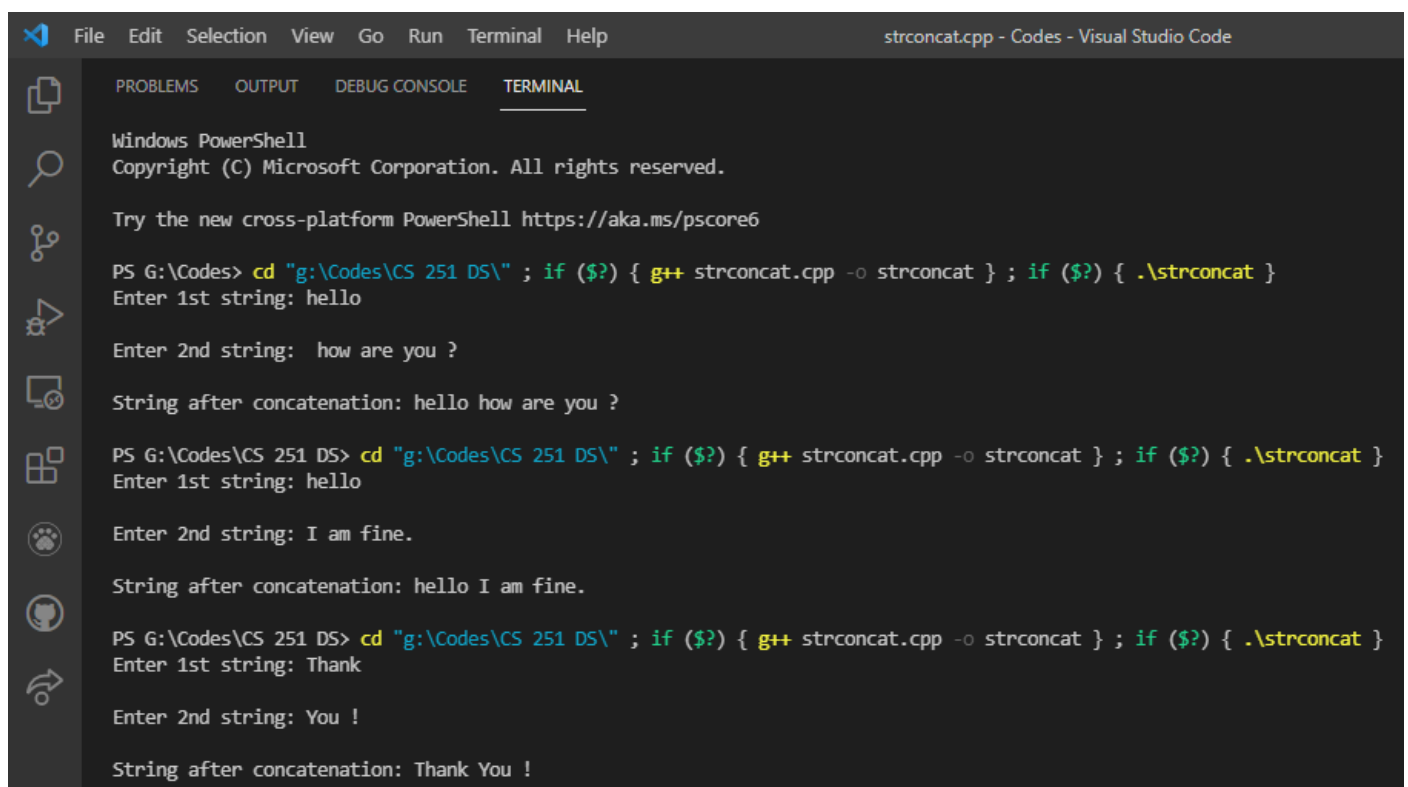
```
//Aneesh Panchal
//2K20/MC/21

#include<bits/stdc++.h>
using namespace std;

int main()
{
    char str1[101],str2[101];
    cout<<"Enter 1st string: ";
    gets(str1);
    cout<<endl<<"Enter 2nd string: ";
    gets(str2);
    int i=0,j=0;
    while(str1[i]!='\0')
        ++i;

    while(str2[j]!='\0')
    {
        str1[i]=str2[j];
        ++i;++j;
    }
    str1[i]='\0';

    cout<<endl<<"String after concatenation: "<<str1<<endl<<endl;
    return 0;
}
```



The screenshot shows the Visual Studio Code interface with the 'TERMINAL' tab active. The terminal output shows the program being compiled and executed three times with different inputs. The first run uses 'hello' and 'how are you ?'. The second run uses 'hello' and 'I am fine.'. The third run uses 'Thank' and 'You !'. In each case, the output is the concatenation of the two strings followed by a newline.

```
strconcat.cpp - Codes - Visual Studio Code

PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL

Windows PowerShell
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PS G:\Codes> cd "g:\Codes\CS 251 DS\" ; if ($?) { g++ strconcat.cpp -o strconcat } ; if ($?) { .\strconcat }
Enter 1st string: hello

Enter 2nd string:  how are you ?

String after concatenation: hello how are you ?

PS G:\Codes\CS 251 DS> cd "g:\Codes\CS 251 DS\" ; if ($?) { g++ strconcat.cpp -o strconcat } ; if ($?) { .\strconcat }
Enter 1st string: hello

Enter 2nd string: I am fine.

String after concatenation: hello I am fine.

PS G:\Codes\CS 251 DS> cd "g:\Codes\CS 251 DS\" ; if ($?) { g++ strconcat.cpp -o strconcat } ; if ($?) { .\strconcat }
Enter 1st string: Thank

Enter 2nd string: You !

String after concatenation: Thank You !
```