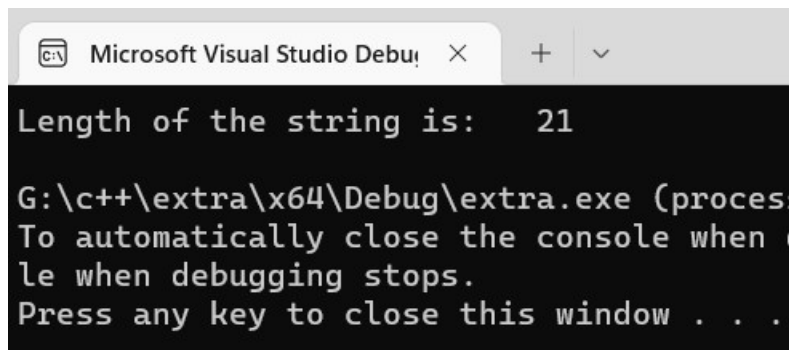


### Task 1:

```
#include<iostream>
using namespace std;
int main()
{
    //int max_size();
    string str = "he is a very good man";
    int i = 0;
    while (str[i] != '\0')
    {
        ++i;
    }
    cout << "Length of the string is: " << i << endl;

    return 0;
}
```



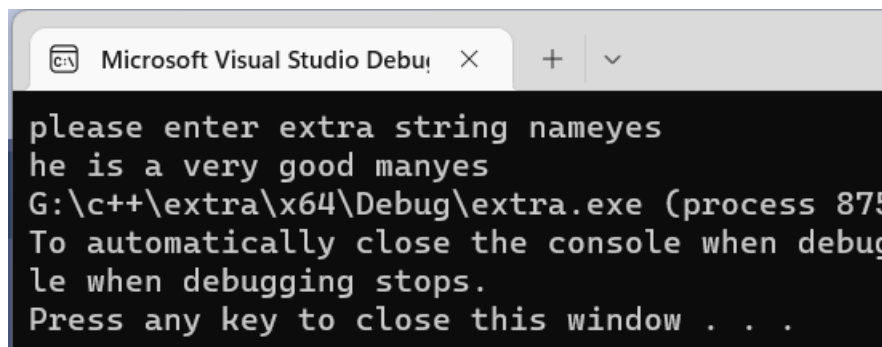
The screenshot shows the Microsoft Visual Studio Debug Console window. The title bar reads "Microsoft Visual Studio Debug Console". The console output is as follows:

```
Length of the string is: 21

G:\c++\extra\x64\Debug\extra.exe (process 8756)
To automatically close the console when debugging stops.
Press any key to close this window . . .
```

### Task 2:

```
#include<iostream>
using namespace std;
int main()
{
    //void push_back(char);
    string str = "he is a very good man", extrastr;
    cout << "please enter extra string name";
    cin >> extrastr;
    str = str + extrastr;
    cout << str;
    return 0;
}
```



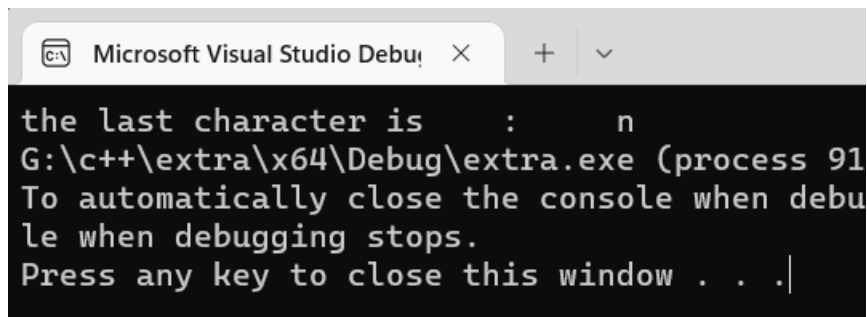
The screenshot shows the Microsoft Visual Studio Debug Console window. The title bar reads "Microsoft Visual Studio Debug Console". The console output is as follows:

```
please enter extra string nameyes
he is a very good manyes
G:\c++\extra\x64\Debug\extra.exe (process 8756)
To automatically close the console when debugging stops.
Press any key to close this window . . .
```

### Task 3:

```
#include<iostream>
using namespace std;
int main()
{
    //iterator end();
    string str = "he is a very good man";

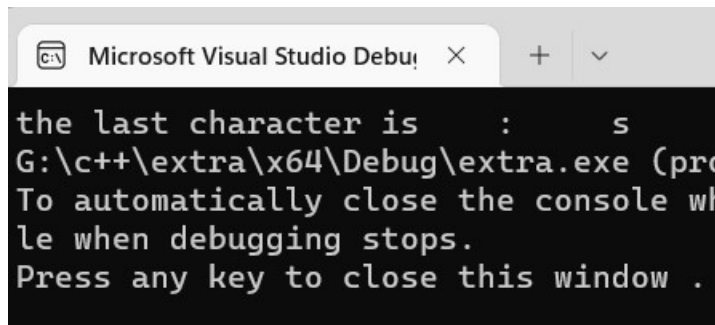
    int i = 0;
    while (str[i] != '\0')
    {
        ++i;
        str[0] = str[i - 1];
    }
    cout <<"the last character is : " <<str[0];
    return 0;
}
```



### Task 4:

```
#include<iostream>
using namespace std;
int main()
{
    //reverse_iterator rbegin();
    string str = "allah is with us";

    int i = 0;
    while (str[i] != '\0')
    {
        ++i;
        str[0] = str[i - 1];
    }
    cout <<"the last character is : " <<str[0];
    return 0;
}
```

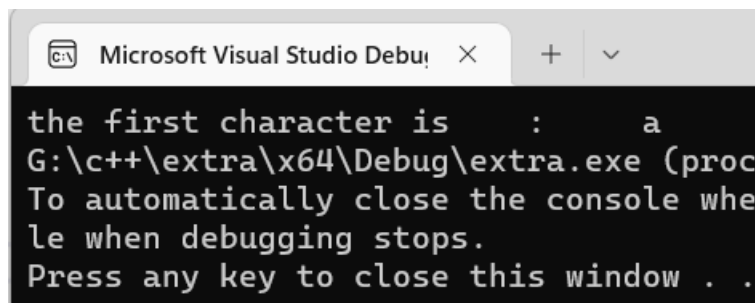


```
the last character is : s
G:\c++\extra\x64\Debug\extra.exe (proc...
To automatically close the console whe...
le when debugging stops.
Press any key to close this window .
```

Task 5:

```
#include<iostream>
using namespace std;
int main()
{
    //reverse_iterator rend();
    string str = "allah is with us";

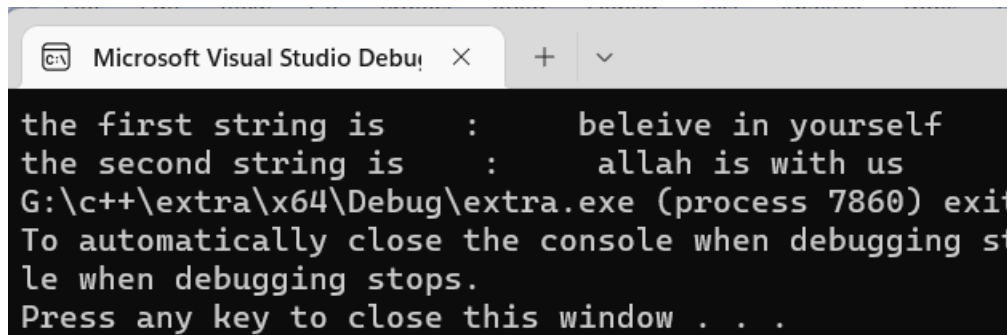
    cout <<"the first character is : " <<str[0];
    return 0;
}
```



```
the first character is : a
G:\c++\extra\x64\Debug\extra.exe (proc...
To automatically close the console whe...
le when debugging stops.
Press any key to close this window . .
```

Task 6:

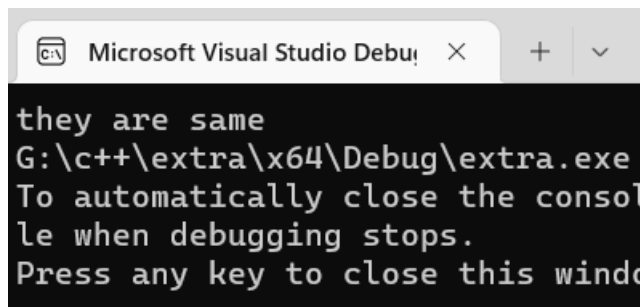
```
#include<iostream>
using namespace std;
int main()
{
    //void swap(string& str1);
    string str1 = "allah is with us", str2 = "beleive in yourself", str3;
    str3 = str1;
    str1 = str2;
    str2 = str3;
    cout <<"the first string is : " <<str1<<endl;
    cout <<"the second string is : " << str2;
    return 0;
}
```



```
the first string is      :      beleive in yourself
the second string is     :      allah is with us
G:\c++\extra\x64\Debug\extra.exe (process 7860) exit
To automatically close the console when debugging stops.
Press any key to close this window . . .
```

Task 7:

```
#include<iostream>
using namespace std;
int main()
{
    //int compare(const string& str1);
    string str1 = "allah is with us", str2 = "allah is with us";
    if (str1 == str2)
    {
        cout << "they are same ";
    }
    else
    {
        cout << "they are not same";
    }
    return 0;
}
```



```
they are same
G:\c++\extra\x64\Debug\extra.exe
To automatically close the console when debugging stops.
Press any key to close this window
```

Task 8:

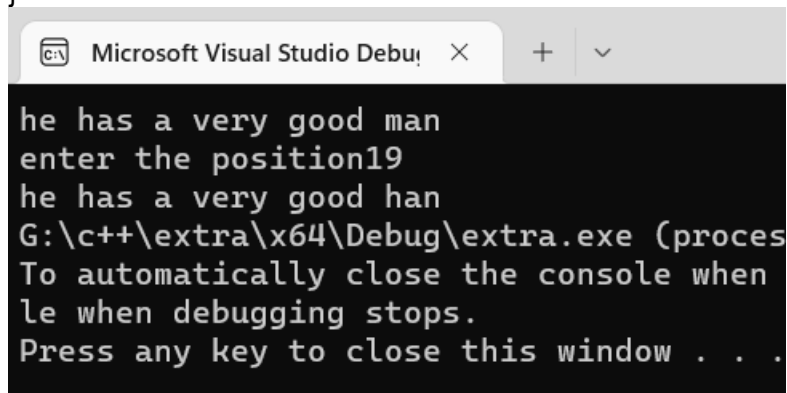
```
#include<iostream>
using namespace std;
int main()
{
    //string& replace(int pos, int n, string& str1);
    string str = "he has a very good man";
    int n;
    char ch = 'h';
    cout << str<<endl;
    cout << "enter the position";
    cin >> n;
    str[n] = ch;
```

```

    cout << str;

    return 0;
}

```



he has a very good man  
 enter the position19  
 he has a very good han  
 G:\c++\extra\x64\Debug\extra.exe (proces  
 To automatically close the console when  
 le when debugging stops.  
 Press any key to close this window . . .

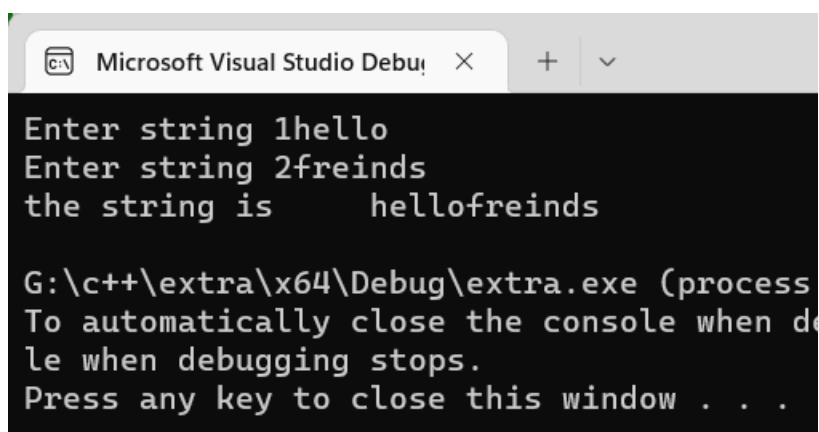
#### Task 9:

```

#include <iostream>
#include <string>
using namespace std;

int main()
{
    // code to add two string without using append function;
    string str1, str2;
    cout << "Enter string 1";
    getline(cin, str1);
    cout << "Enter string 2";
    getline(cin, str2);
    str1 += str2;
    cout << "the string is " << str1 << endl;
}

```



Enter string 1hello  
 Enter string 2freinds  
 the string is hellofreinds  
 G:\c++\extra\x64\Debug\extra.exe (process  
 To automatically close the console when de  
 le when debugging stops.  
 Press any key to close this window . . .

#### Task 10:

```

#include <iostream>
using namespace std;
int main()
{

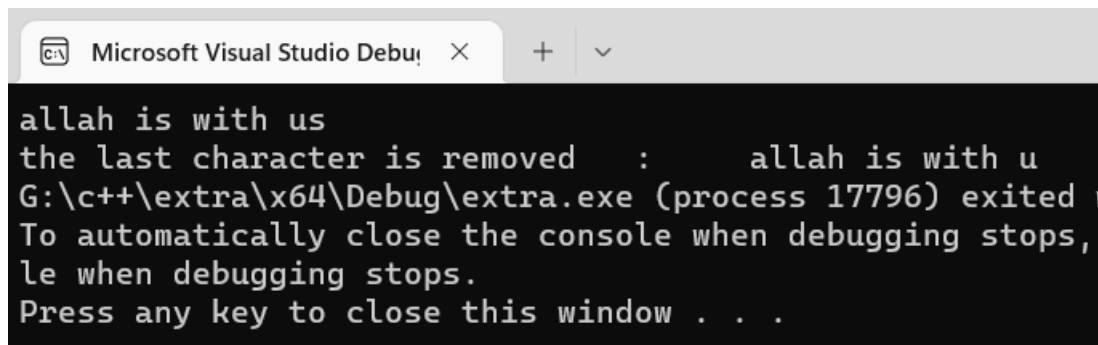
```

```

//void pop_back();
string str = "allah is with us";
cout << str<<endl;
int i = 0;
while (str[i] != '\0')
{
    ++i;

}
str[i - 1] = '\0';
cout << "the last character is removed : " << str;
return 0;
}

```



```

allah is with us
the last character is removed : allah is with u
G:\c++\extra\x64\Debug\extra.exe (process 17796) exited
To automatically close the console when debugging stops,
le when debugging stops.
Press any key to close this window . . .

```

Task 11:

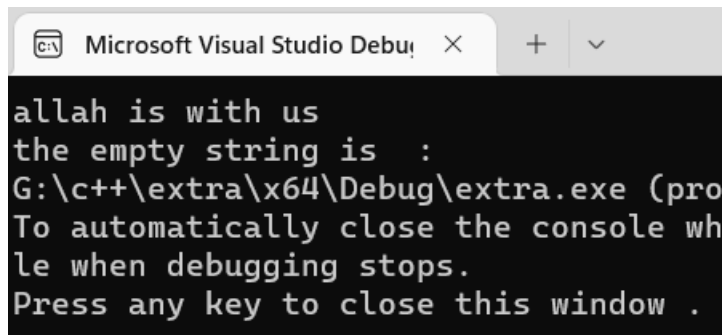
```

#include<iostream>
using namespace std;
int main()
{
    //void clear()orstring& erase();
    string str = "allah is with us";
    cout << str<<endl;
    int i = 0;
    while (str[i] != '\0')
    {
        ++i;

    }
    int j = 0;
    for (int j = i; j >=0; j--)
    {
        str[j] = '\0';

    }
    cout <<"the empty string is : " << str[j];
    return 0;
}

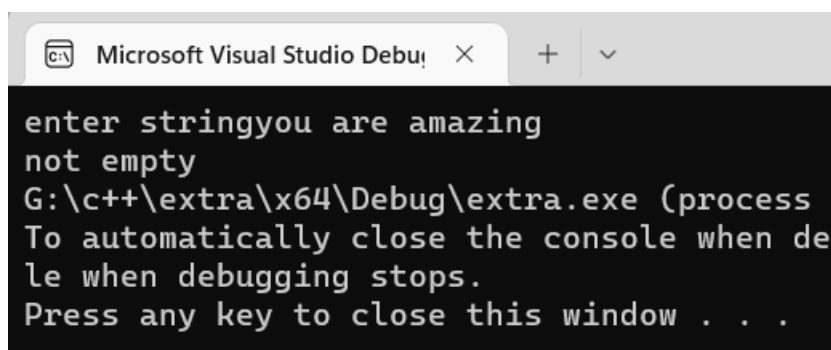
```



```
allah is with us
the empty string is :
G:\c++\extra\x64\Debug\extra.exe (process
To automatically close the console when de
le when debugging stops.
Press any key to close this window .
```

Task 12:

```
#include<iostream>
using namespace std;
int main()
{
    //bool empty();
    string str;
    cout << "enter string";
    cin >> str;
    if (str == " ")
    {
        cout << "string is empty";
    }
    else
    {
        cout << "not empty";
    }
    return 0;
}
```



```
enter stringyou are amazing
not empty
G:\c++\extra\x64\Debug\extra.exe (process
To automatically close the console when de
le when debugging stops.
Press any key to close this window . . .
```

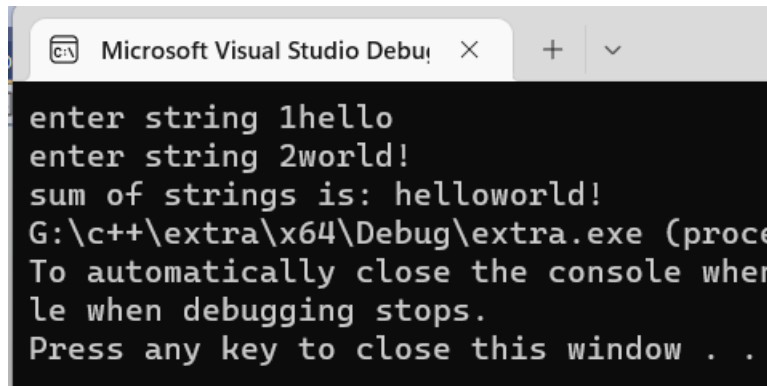
Task 13:

```
#include<iostream>
using namespace std;
int main()
{
    //to add two strings;
    string str1,str2,str;
    cout << "enter string 1";
    cin >> str1;
    cout << "enter string 2";
    cin >> str2;
```

```

    str = str1 + str2;
    cout << "sum of strings is: " << str;
    return 0;
}

```



```

enter string 1hello
enter string 2world!
sum of strings is: helloworld!
G:\c++\extra\x64\Debug\extra.exe (proce
To automatically close the console when
le when debugging stops.
Press any key to close this window . .

```

Task 14:

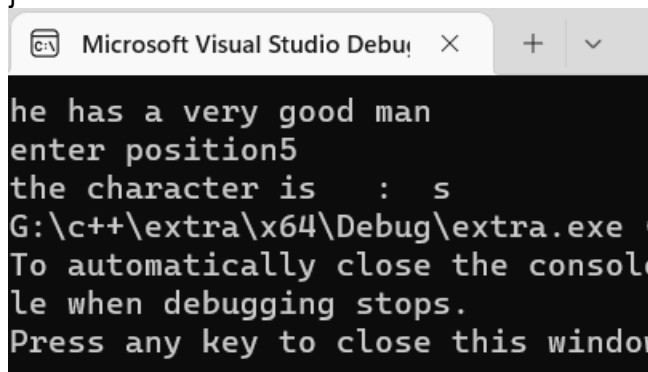
```

#include<iostream>

using namespace std;
int main()
{
    //char& at(int position);
    string str = "he has a very good man";
    int n;
    cout << "enter position";
    cin >> n;
    cout << "the character is : " << str[n];

    return 0;
}

```



```

he has a very good man
enter position5
the character is : s
G:\c++\extra\x64\Debug\extra.exe (
To automatically close the console
le when debugging stops.
Press any key to close this window

```

Task 15:

```

#include <iostream>
#include<string>

using namespace std;

int main()

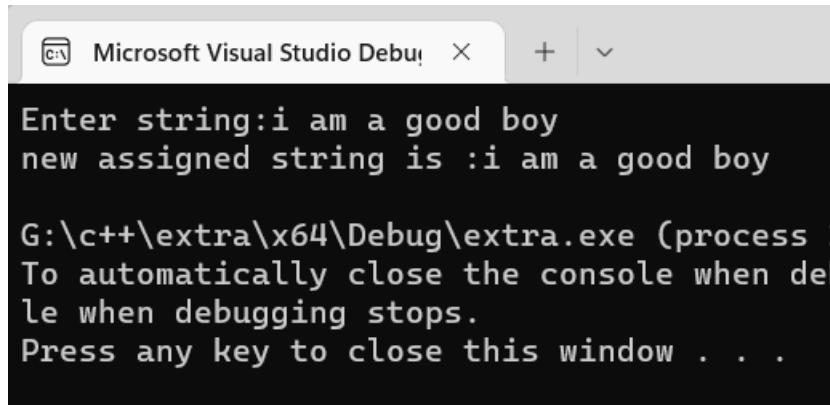
```



```

{
    // string& assign();
    string str1, str;
    cout << "Enter string:";
    getline(cin, str1);
    str = str1;
    cout << "new assigned string is :" << str << endl;
}

```



Microsoft Visual Studio Debug Console

```

Enter string:i am a good boy
new assigned string is :i am a good boy

G:\c++\extra\x64\Debug\extra.exe (process 2)
To automatically close the console when debugging stops.
Press any key to close this window . . .

```

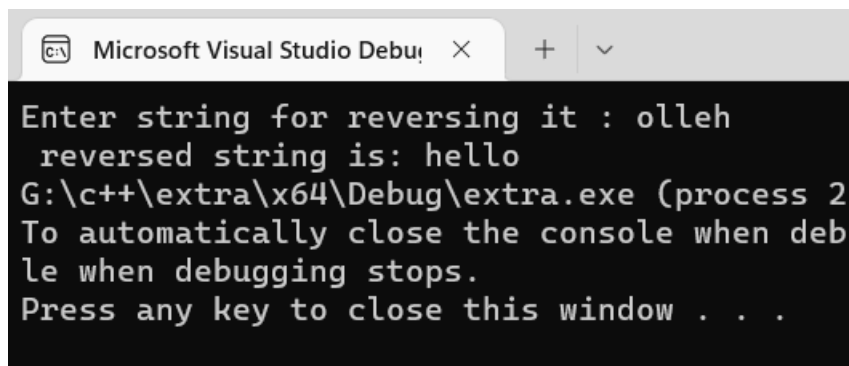
Task 16:

```

#include<iostream>
#include<string>
using namespace std;
int main()
{
    // reverseStr;
    int i = 0, j = 0;
    string str;
    cout << "Enter string for reversing it : ";
    getline(cin, str);

    for (j = 0; str[j] != '\0'; j++);
    cout << " reversed string is: ";
    for (i = j; i >= 0; i--)
    {
        cout << str[i];
    }
}

```



Microsoft Visual Studio Debug Console

```

Enter string for reversing it : olleh
reversed string is: hello

G:\c++\extra\x64\Debug\extra.exe (process 2)
To automatically close the console when debugging stops.
Press any key to close this window . . .

```

Task 17:

```

#include<iostream>

```

```

#include<string>
using namespace std;
int main()
{
    // to resize string ;
    string str;
    int num;
    char ch=0;
    cout << "Enter string : ";
    getline(cin, str);
    cout << "please Enter the amount of characetrns you want to print";
    cin >> num;

    for (int i = 0; str[i] != '\0'; i++)
    {
        if (i >= num)
        {
            str[i] = ch;
        }
    }
    cout << "The character after removing is: " << str;
}

```

```

Microsoft Visual Studio Debug Console
Enter string : i am a programmer with some weaknesses.
please Enter the amount of characetrns you want to print17
The character after removing is: i am a programmer
G:\c++\extra\x64\Debug\extra.exe (process 11180) exited with code 0
To automatically close the console when debugging stops, enable
the setting 'Debug Console - Close Console When Debugging Stops'
Press any key to close this window . . .

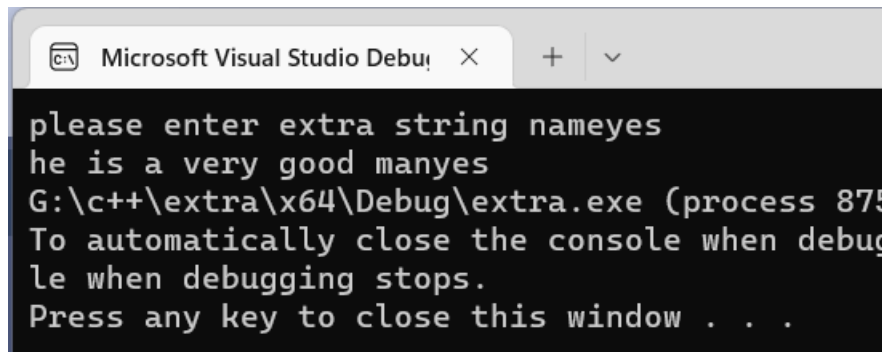
```

Task 18:

```

#include<iostream>
using namespace std;
int main()
{
    // string& append(const string& str1);
    string str = "he is a very good man",extrastr;
    cout << "please enter extra string name";
    cin >> extrastr;
    str = str + extrastr;
    cout << str;
    return 0;
}

```

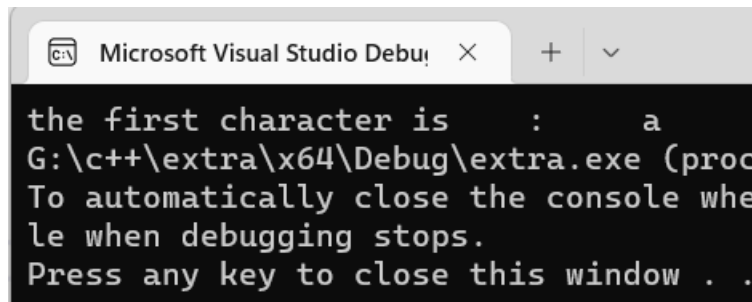


```
Microsoft Visual Studio Debug Console
please enter extra string nameyes
he is a very good manyes
G:\c++\extra\x64\Debug\extra.exe (process 875
To automatically close the console when debugg
le when debugging stops.
Press any key to close this window . . .
```

Task 19:

```
#include<iostream>
using namespace std;
int main()
{
    // const_reverse_iterator crend();
    string str = "allah is with us";

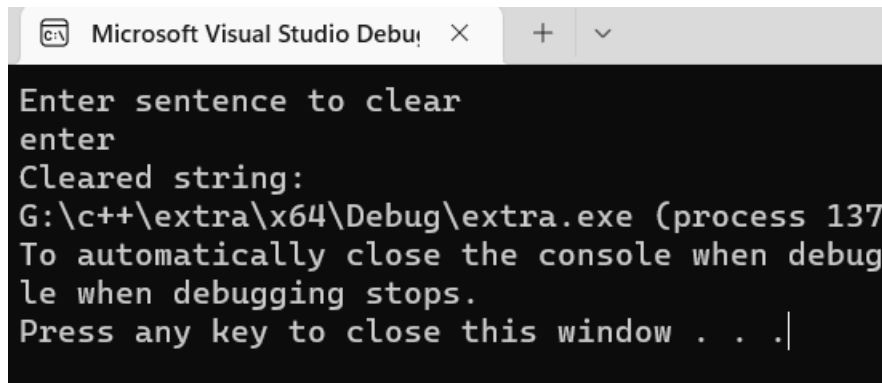
    cout <<"the first character is : " <<str[0];
    return 0;
}
```



```
Microsoft Visual Studio Debug Console
the first character is : a
G:\c++\extra\x64\Debug\extra.exe (proc
To automatically close the console whe
le when debugging stops.
Press any key to close this window . .
```

Task 20:

```
#include<iostream>
#include<string>
using namespace std;
int main()
{
    string str;
    char str1 = 0;
    cout << "Enter sentence to clear"<<endl;
    getline(cin, str);
    str = str1;
    cout << "Cleared string: " << str;
}
```



```
Microsoft Visual Studio Debug Console
Enter sentence to clear
enter
Cleared string:
G:\c++\extra\x64\Debug\extra.exe (process 1379)
To automatically close the console when debugging stops.
Press any key to close this window . . .|
```

Other tasks I have written in one program which are implemented with functions are as:

```
#include<iostream>
#include <string>
using namespace std;

/*
int length(string str)
{
    int i;
    for (i = 0; str[i] != '\0'; i++);
    return i;
}*/

/*int sum(string a, string b)
{
    string sum = a + b;

    return sum;
}*/

/*
* string concatenate(string a, string b)
```

```

{
    string sum = a + b;

    return sum;

}int main()
{
    string str1, str2;
    cout << "Enter string 1:  ";
    getline(cin, str1);

    cout << "Enter string 2  ";
    getline(cin, str2);
    cout << "sum of Strings is : " << concatenate(str1, str2);

}
*/

```

```

/*
* string push(string str1, string str)
{
    str = str1 + str;
    return str;
}
int main()
{

    string str1 = "he is a very good man", str;
    cout << "Enter string:  ";

```

```

        getline(cin, str);

        cout << "push back func of String is : " << push(str1, str);

    }

    */

    //code to clear string without using clear function

    /*char remove(string str)
    {
        int i=0;

        while (str[i] != '\0')
        {
            ++i;

            str[0] = str[i - 1];
        }

        return str[0];

    }

    int main()
    {
        //iterator end();

        string str = "he is a very good man";

        cout << "the last character is : " << str;

        return 0;

    }

    */

    /*
    * string swap(string str1, string str2, string str3)
    {
        str3 = str1;

        str1 = str2;

        str2 = str3;

        return str1, str2;
    }
    */

```

```
}
```

```
int main()
```

```
{
```

```
    //void swap(string& str1);
```

```
    string str1 = "allah is with us", str2 = "beleive in yourself", str3;
```

```
    cout << "the first string is   :   " << str2 << endl;
```

```
    cout << "the second string is   :   " << str1;
```

```
    return 0;
```

```
}
```

```
*/
```

```
/*string compare(string s1, string s2, string s3, string s4)
```

```
{
```

```
    s3 = "same";
```

```
    s4 = "not same";
```

```
    if (s1 == s2)
```

```
    {
```

```
        cout << "they are same ";
```

```
        return s3;
```

```
    }
```

```
    else
```

```
    {
```

```
        cout << "they are not same";
```

```
        return s4;
```

```
    }
```

```
}
```

```
int main()
```

```
{
```

```
    //int compare(const string& str1);
```

```
    string str1 = "allah is with us", str2 = "allah is with us",s3,s4;
```

```
    cout << compare(s3,s4);
```

```
    return 0;
```

```

}

*/
/*
* void clear(string str)
{
    char a = 0;
    cout << "Before Clear : " << str;
    str = a;
    cout << "After Clear : " << str;
}
int main()
{
    string str;
    cout << "Enter string : ";
    getline(cin, str);
    clear(str);

}
*/
/*string aftererase(string str)
{
    int i;
    for (i = 0; str[i] != '\0'; i++);
    str[i - 1] = '\0';
    return str;
}
int main()
{
    string var;
    cout << "Enter the String : ";
    getline(cin, var);
    cout << aftererase(var);
    system("pause");
}

```



```

*/
/*string erase(string str, int k, int i )
{
    for (int e = i; e < i + 1; e++)
    {
        for (int t = 0; t < k; t++, e++)
        {
            str[e] = 0;
        }
    }
    return str;
}

int main()
{
    int a = 0, b = 0;
    string str;
    cout << "Enter String : ";
    getline(cin, str);
    cout << "Enter Start and end : ";
    cin >> b >> a;
    cout << erase(str, b, a);
}

*/
/*
void substr(string str, int i, int k)
{
    for (int j = i; j < i + 1; j++)
    {
        for (int t = 0; t < k; t++, j++)
        {
            cout << str[j];
        }
    }
}

int main()

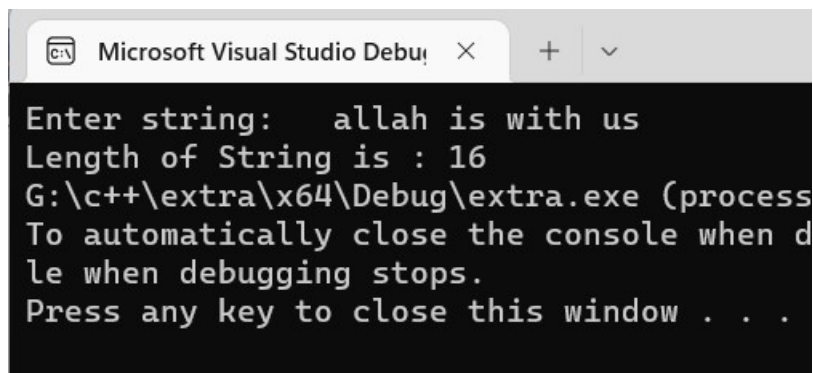
```

```

{
    int a = 0, b = 0;
    string str;
    cout << "Enter String : ";
    getline(cin, str);

    cout << "please Enter Star and End : ";
    cin >> a >> b;
    substr(str, a, b);
}*/

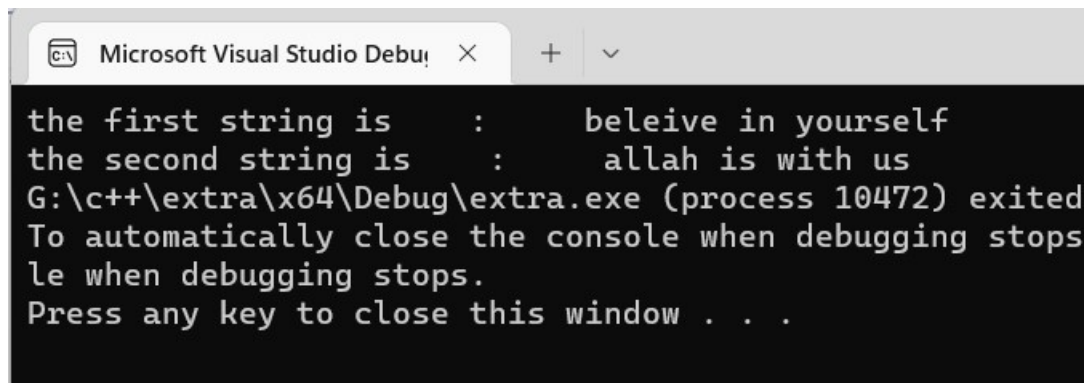
```



```

Microsoft Visual Studio Debug Console
Enter string:  allah is with us
Length of String is : 16
G:\c++\extra\x64\Debug\extra.exe (process 10472) exited
To automatically close the console when debugging stops
Press any key to close this window . . .

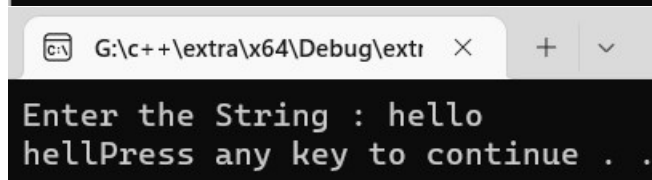
```



```

Microsoft Visual Studio Debug Console
the first string is :  beleive in yourself
the second string is :  allah is with us
G:\c++\extra\x64\Debug\extra.exe (process 10472) exited
To automatically close the console when debugging stops
Press any key to close this window . . .

```



```

G:\c++\extra\x64\Debug\extra.exe
Enter the String : hello
hellPress any key to continue . . .

```

```
Microsoft Visual Studio Debug Console
Enter String : hello world
please Enter Star and End : hd

G:\c++\extra\x64\Debug\extra.exe (process 14052) exited with code 0.
To automatically close the console when debugging stops, enable Tools->Options->Environment->Automatically close the console when debugging stops.
Press any key to close this window . . .
```

```
Microsoft Visual Studio Debug Console
Enter string 1:  is this your pen
Enter string 2  this is not mine
sum of Strings is : is this your pen this is not mine
G:\c++\extra\x64\Debug\extra.exe (process 14052) exited with code 0.
To automatically close the console when debugging stops, enable Tools->Options->Environment->Automatically close the console when debugging stops.
Press any key to close this window . . .
```

```
Microsoft Visual Studio Debug Console
Enter string : he is my friend
Before Clear :  he is my friendAfter Clear :
G:\c++\extra\x64\Debug\extra.exe (process 14052) exited with code 0.
To automatically close the console when debugging stops, enable Tools->Options->Environment->Automatically close the console when debugging stops.
Press any key to close this window . . .
```

```
Microsoft Visual Studio Debug Console
Enter string:  lbgfd jfdgb jdgb
push back func of String is : he is a very good manlbgfd jfdgb jdgb
G:\c++\extra\x64\Debug\extra.exe (process 4836) exited with code 0.
To automatically close the console when debugging stops, enable Tools->Options->Environment->Automatically close the console when debugging stops.
Press any key to close this window . . .
```