CSC 150 PRELAB #10 – cStrings

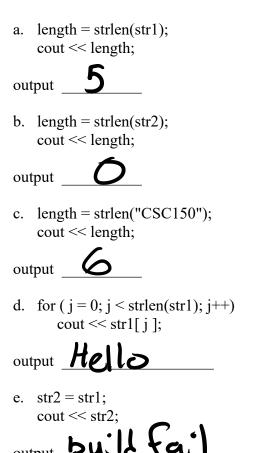
Purpose:

- 1. Work with strings as an array of characters
- 2. Work with C-style strings (cStrings) and string functions.

I – Strings

1. Given the following:

What is the output if you substitute the following after the variable declarations in main? Indicate if there is an invalid statement or compiler error.



```
f. strcpy(str2, str1);
cout << str2;

output Hello

g. strcpy(str1, str3);
cout << str3;

output Listle

h. strcpy(str2, "String 2");
cout << str2;

output String Listration

i. strncpy(str2, str1, 3);
cout << str2;

output Hello

j. strncpy(str3, str1, 3);
cout << str3;
output Hello

Hel
```

k. strncpy(str2, "String 2", 3); cout << str2;	t. cmp = strcmp (str1, "Hello"); cout << cmp;
output Str	output
1. strcat (str1, str3); cout << str1;	<pre>u. cmp = strcmp (str1, "hello"); cout << cmp;</pre>
output Hellahorla	output _
m. strcat (str3, str1); cout << str3;	v. strcpy (str2, "Hello2"); cmp = strncmp (str1, str2, 5); cout << cmp;
output World Hello n. streat (str2, "String 2");	output
cout << str3;	w. cmp = strncmp (str1, str3, 3); cout << cmp;
o. strncat (str1, str3, 3);	output
cout << str1; output Helb Wo	x. cmp = strncmp (str3, "Word", 3); cout << cmp;
p. strncat (str3, str1, 2); cout << str3;	output y. cmp = stricmp (str3, "World!");
output Worl!	cout << cmp;
q. strncat (str3, "String 2", 7);	output
cout << str3;	z. cmp = stricmp (str3, "world!"); cout << cmp;
output WorldString	output 33
r. cmp = strcmp (str1, str3); cout << cmp;	<pre>aa. str3 = strtoupper ("world!"); cout << str3;</pre>
output	output builderra
s. cmp = strcmp (str3, str1); cout << cmp;	bb. strlwr (str3);
output	cout << str3;
	output World

has

2. Given the following:

```
#define _CRT_SECURE_NO_DEPRECATE
#define _CRT_NONSTDC_NO_DEPRECATE
#include <iostream>
#include <cstring>
using namespace std;
int main()
{
   char str1[10];
   cin >> str1;
   cout << str1;
   return 0;
}</pre>
```

What happens if the following values are entered?

a. hello

answer helb

b. thisisaverrryverrylongsentence

answerthisiscurry verry long sentence and a debug

Why do you get this answer?

the array only holds 10 Characters

c. hi mom

answer hi

3. Given the following

```
#define _CRT_SECURE_NO_DEPRECATE
#define _CRT_NONSTDC_NO_DEPRECATE
#include <iostream>
#include <cstring>
using namespace std;
int main()
{
   char str1[] = "First";
   char str2[20] = "This is a test";

   strcat(str1, str2);
   cout << str1;
   return 0;
}</pre>
```

What happens when you run this program and why?

First Thomas a test Over flavour 4. Use the <cstring> library and character array string functions.

Complete the program program below that allows the user to enter two short phrases. In a separate function, combine the two phrases into one single string, ensuring that only as much of the two phrases as will fit is copied into the destination. Be sure to place a space between the two source strings in the destination. Write your function in such a way it will correctly work for any length of source strings, even the case where all of the first source will not fit in the destination.

Append your code to the end of this prelab file.

A sample run of this program should look like this: (User input in **bold italics**)

```
Enter your first phrase (24 or fewer characters: the quick brown fox Enter your second phrase (24 or fewer characters: jumps over the lazy dog String1: the quick brown fox String2: jumps over the lazy dog Combined string: the quick brown fox jumps over the lazy
```

Source file: prelab12.cpp

```
#define CRT SECURE NO DEPRECATE
#define _CRT_NONSTDC_NO_DEPRECATE
#include <iostream>
#include <cstring>
using namespace std;
//prototype here
int main()
{
      char str1[25] = "";
      char str2[25] = "";
      char str3[40] = ""; //note this is not twice the size of str1 or str2
      cout << "Enter your first phrase (24 or fewer characters: ";</pre>
      //write input statement for strl
      cout << "Enter your second phrase (24 or fewer characters: ";</pre>
      //write input statement for str2
      build big string( str3,40, str1, str2 ); //note order of arguments
      cout << endl << endl;</pre>
      cout << "String1: " << str1 << endl;</pre>
      cout << "String2: " << str2 << endl;</pre>
      cout << "Combined string: " << endl;</pre>
      return 0;
}
//function definition here
```