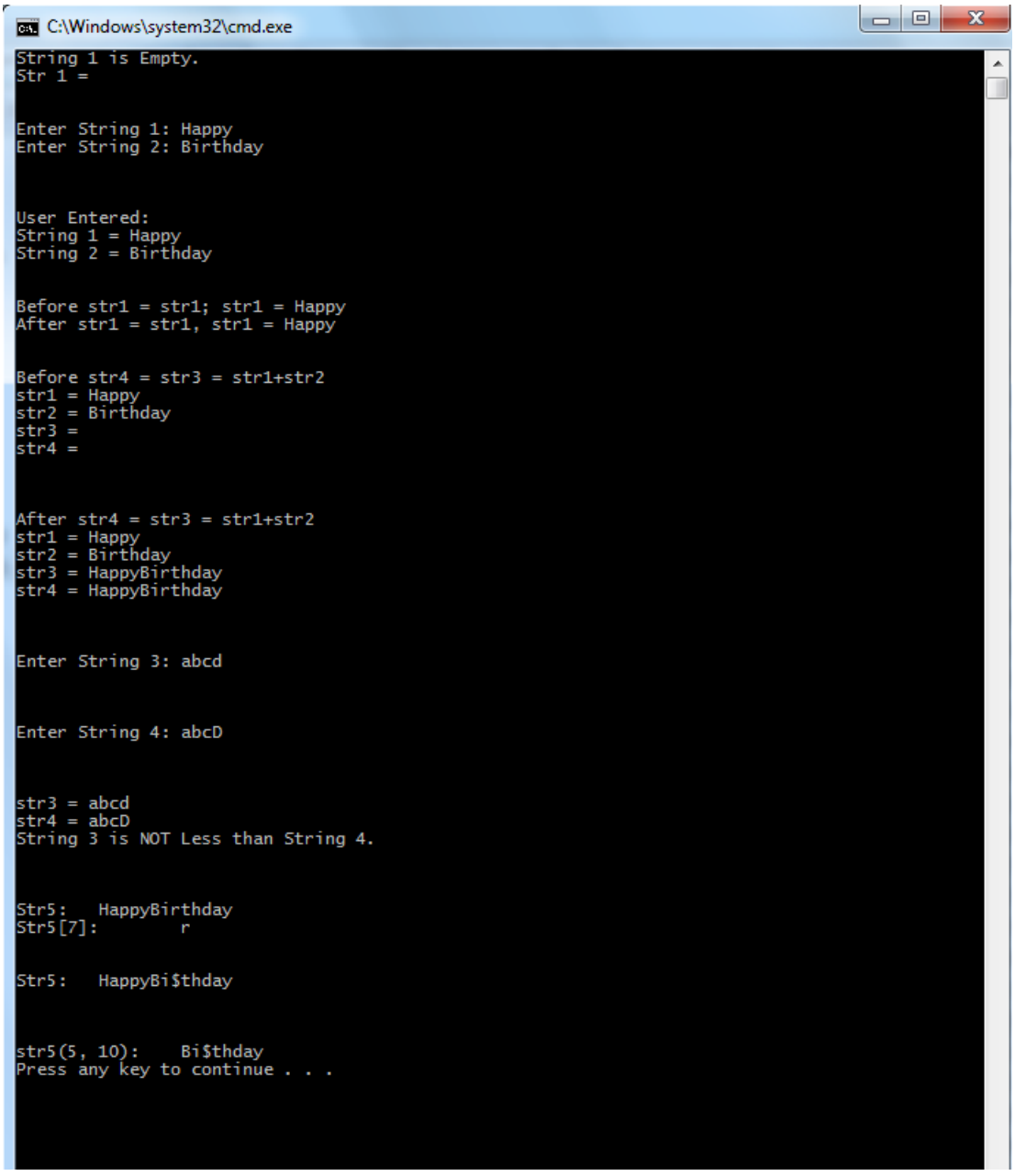
**OOP – Assignment 6**

**Operator Overloading**

You are given a cpp file “YourRollNumber.cpp” which contains partial definition of class “MyString” and a driver program Main. Your task is to complete the definition of MyString such that it gives following output:




**Important:**

**You are not allowed to change main program.**

**YourRollNo.cpp**

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

```
class MyString
{
	//You can add your code here
private:
	char* str;
	int lenght;   //including the null char here
	//Add GetStringFromBuffer as private member (helper)
	//Add Concatenate as private member (helper)
	//You can add your class members here
public:

	//-------------DO_NOT_CHANGE REGION starts below---------------------
	//Do not change the prototypes given below
	MyString operator+(const MyString);
	MyString& operator=(const MyString&);
	bool operator<(MyString);   //Comparison on the basis of ascii values
	//-------------End of DO_NOT_CHANGE REGION---------------------

	//Add your class members here
};

//-------------------------Add your code here----------------------

//-------------DO_NOT_CHANGE REGION starts below---------------------
void main()
{
	MyString str1, str2, str3, str4;   //Default constructor will make a string of
lenght 1 having null character only i.e. empty string

	if(!str1)
	{
		cout<<"String 1 is Empty.\n";
		cout<<"Str 1 = "<<str1<<endl<<endl<<endl;
	}

	cout << "Enter String 1:\t";
	cin >> str1;


	cout << "Enter String 2:\t";
	cin >> str2;


	cout << "\n\n\nUser Entered:\n";
	cout << "String 1 = " << str1 << endl;
	cout << "String 2 = " << str2 << endl<<endl<<endl;

	//What is following code testing?
	cout<<"Before str1 = str1; str1 = "<<str1<<endl;
	str1 = str1;
	cout<<"After str1 = str1, str1 = "<<str1<<endl<<endl<<endl;


	cout<<"Before str4 = str3 = str1+str2\n";
	cout<<"str1 = "<<str1<<endl;
	cout<<"str2 = "<<str2<<endl;
	cout<<"str3 = "<<str3<<endl;
```

```
	cout<<"str4 = "<<str4<<endl;

	str4 = str3 = str1+str2;


	cout<<"\n\n\nAfter str4 = str3 = str1+str2\n";
	cout<<"str1 = "<<str1<<endl;
	cout<<"str2 = "<<str2<<endl;
	cout<<"str3 = "<<str3<<endl;
	cout<<"str4 = "<<str4<<endl;

	cout<<"\n\n\nEnter String 3:\t";
	cin >> str3;

	cout<<"\n\n\nEnter String 4:\t";
	cin >> str4;


	cout<<"\n\n\nstr3 = "<<str3<<endl;
	cout<<"str4 = "<<str4<<endl;

	if(str3 < str4)
		cout<<"String 3 is Less than String 4.\n";
	else
		cout<<"String 3 is NOT Less than String 4.\n";

	MyString str5 = str1 + str2;
	cout << "\n\n\nStr5:\t" << str5 << endl;
	cout << "Str5[7]:\t" << str5[7] << endl; //Function Call: str5.operator[](7).
	str5[7] = '$';

	cout << "\n\nStr5:\t" << str5 << endl;

	cout << "\n\n\nstr5(5, 10):\t" << str5(5, 10) << endl;// Substring of lenght 10
starting from index 5 . Function Call str5.operator()(5,10) Let the returned MyString or
char* leak

}
//-------------End of DO_NOT_CHANGE REGION--------------------
```