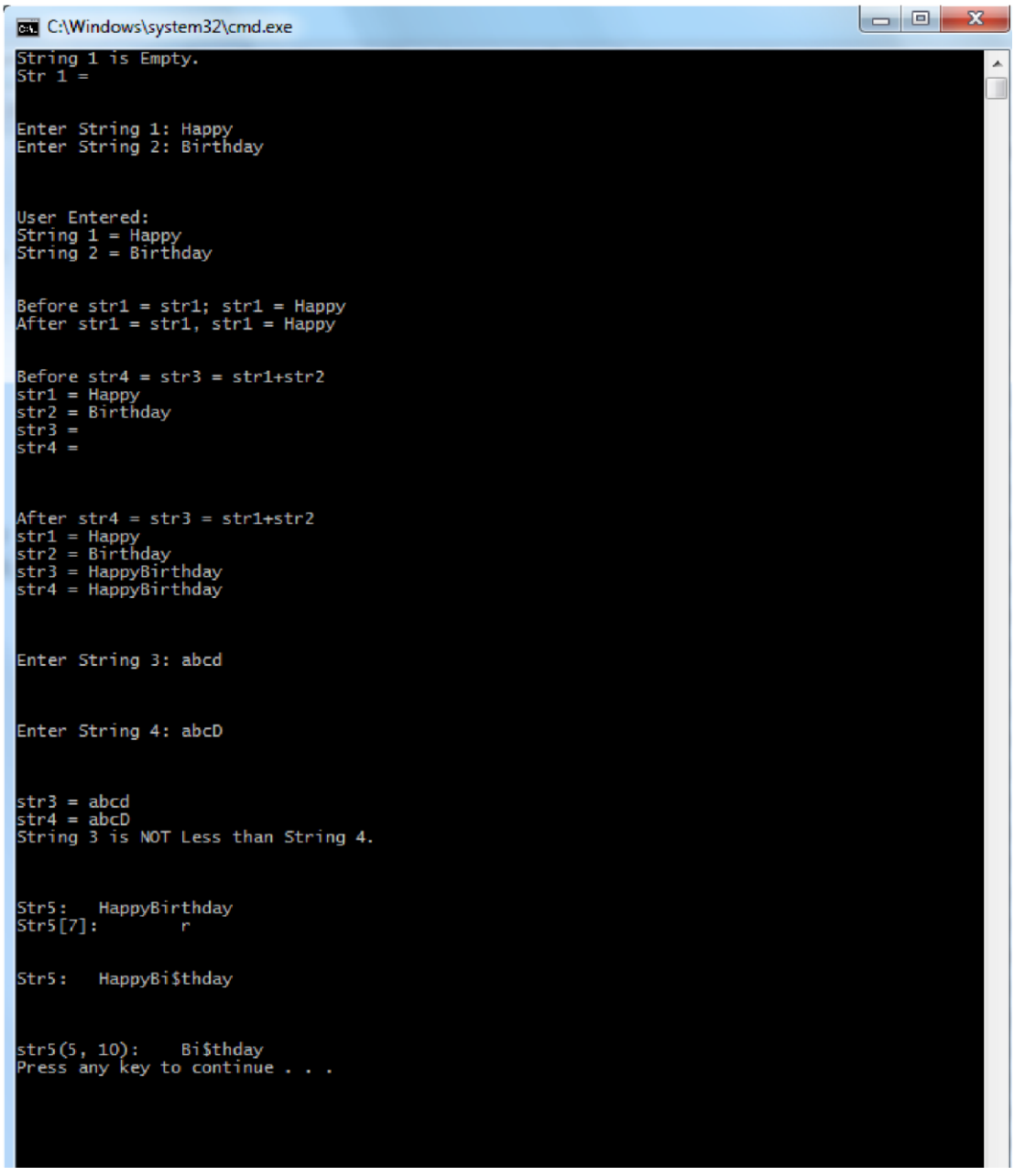
OOP – Assignment 2 (BsCs-3B) (BsDs-3A)

Operator Overloading

DO NOT USE ANY ADDIONAL LIBRARY EXCEPT <iostream>

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; //not including the null char here
	//Add GetStringFromBuffer as static private member (helper)
	//Add Concatenate, CompareString as static 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 0 but 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---------------------
```