# User Input Program

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CSC 450: Programming III

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**CTA 5 Main Program Code**

```
//Needed packages, algorithm will be used to reverse strings.
#include<iostream>
#include<fstream>
#include<string>
#include<algorithm>

//Standard namespace declaration
using namespace std;

//Main Function, main entry point.
int main() {

    //Declaring some strings that hold filenames.
    string fileName = "CSC450_CT5_mod5.txt";
    string fileNameReversed = "CSC450-mod5-reverse.txt";

    //This part asks the user for some input to be appended to the file.
    //It stores their input into a string called "usersInput".
    cout << "Enter some text to add to the end of the file: ";
    string usersInput = "";
    getline(cin, usersInput);

    //Here, we take what the user entered and append it to the end of the text file.
    ofstream outFile(fileName, ios::app);
    outFile << usersInput << endl;
    outFile.close();

    //Just an output line to the terminal, some feedback to let us know things are happening!
    cout << "Data appended to " << fileName << endl;

    //A new ifstream called "infile" I like to think of these as a "Scanner" from Java.
    //It is necessary to read from a file.
    ifstream inFile(fileName);
    //Storing that text from the inFile ifstream reading from the source text and storing it into
"fileText" string.
    string fileText((istreambuf_iterator<char>(inFile)), istreambuf_iterator<char>());
    inFile.close();

    //Reverse the string, using the function "reverse" imported from algorithm package.
    reverse(fileText.begin(), fileText.end());

    //Write reversed string into new file
    ofstream outPutFile(fileNameReversed);
```

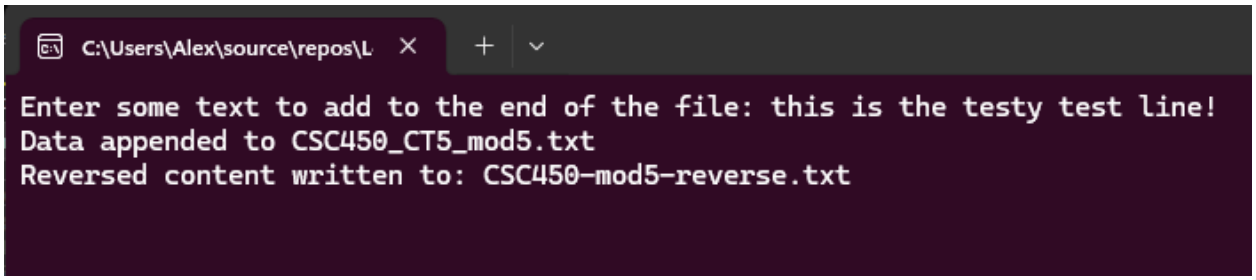
```
    outPutFile << fileText;
    outPutFile.close();

    //Just an output line to the terminal, some feedback to let us know things are happening!
    cout << "Reversed content written to: " << fileNameReversed << endl;

    // Wait For Output Screen
    std::cin.get();

    //Main Function return Statement
    return 0;
}
```

**CTA 5 Main Program Pseudocode**

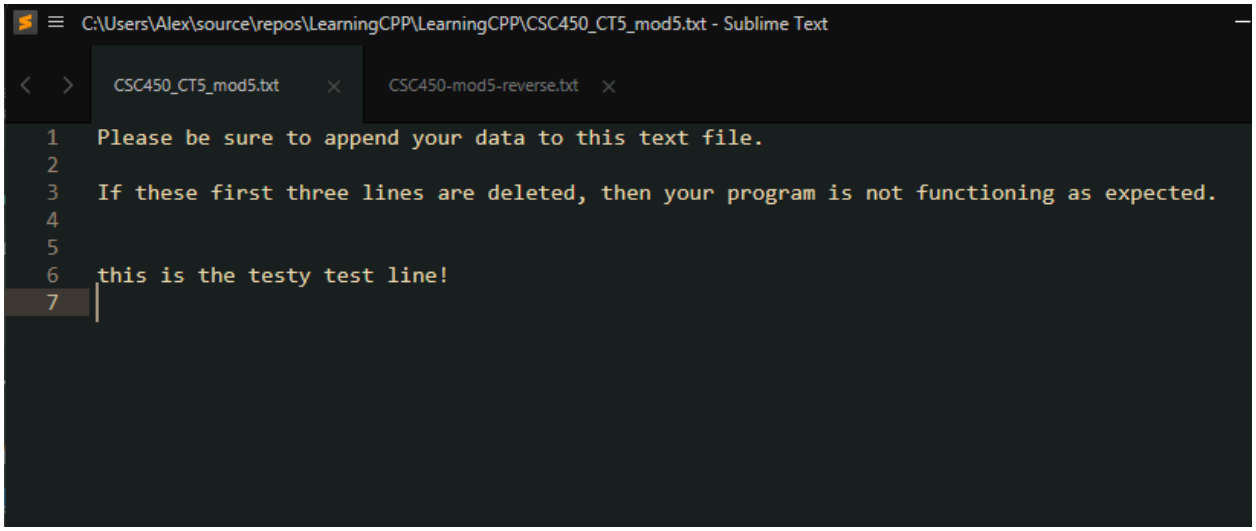
```
//Main function / main entry point.
FUNCTION Main() {
    //Declaring some strings that hold filenames.
    DEFINE a string called 'fileName' equal to "CSC450_CT5_mod5.txt"
    DEFINE a string called 'fileNameReversed' equal to "CSC450-mod5-reverse.txt"

    //This part asks the user for some input to be appended to the file.
    //It stores their input into a string called "usersInput".
    PRINT("Enter some text to add to the end of the file: ")
    DEFINE a string called 'usersInput' equal to the users input in the console.

    //Here, we take what the user entered and append it to the end of the text file.
    DEFINE an ofstream called 'outFile' in "append mode"
    read the contents of 'fileName' using ofStream, adding "usersInput" to the end
    close the ofstream

     //Just an output line to the terminal, some feedback to let us know things are happening!
    PRINT("Data appended to file")

    //Read entire file content into a string
    DEFINE an ifstream called 'inFile' in "read mode"
    DEFINE a string called "fileText" and setting it equal to characters from inFile
    Close the inFile

    //Reverse file content
    //...(There is almost always a package function for this in languages.)
    Reverse characters in fileText
```

```
    // Write reversed content into new file
    DEFINE an ofstream called 'outPutFile' in "write mode" (Outputting to reverse text file)
    Write the contents of fileText, which should now be reversed into the outPutFile
    Close the outPutFile

     //Just an output line to the terminal, some feedback to let us know things are happening!
    Print("Reversed content written to fileNameReversed")

    //Waiting for input as to not immediately close the console.
}
```

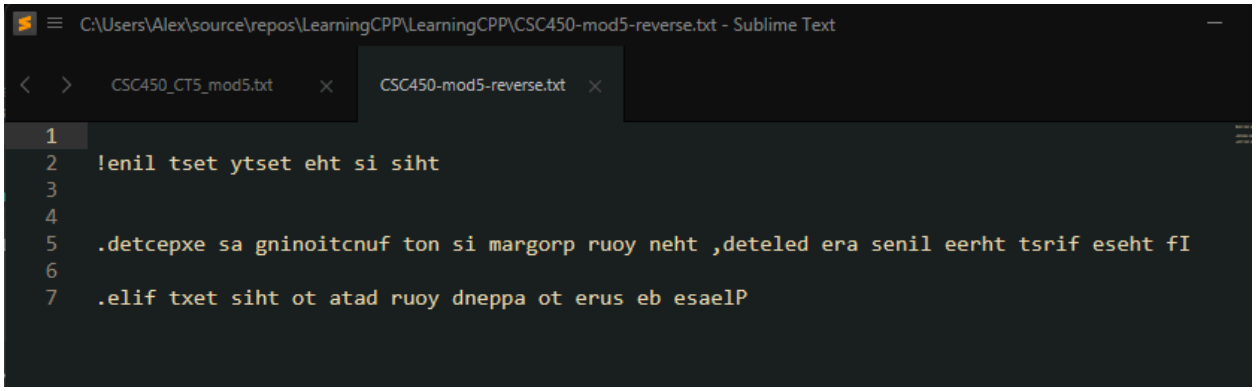
**Main Program Output Console Screenshot**




**Regular Appended Text Result**



**Regular Appended Text Result**




**GitHub Link**

https://github.com/Alpentater/CSC450_Workspace/tree/main/CTA5