

Joshua Rollo

Module 5 critical thinking

Code:

```
#include <iostream>
#include <string>
#include <fstream>
#include <iterator>
#include <vector>
#include <algorithm>

std::string TARGET_FILE = "../CSC450_CT5_mod5.txt";
std::string TARGET_FILE_REVERSED = "../CSC450-mod5-reverse.txt";

std::string getUserInput() {
    std::string userInput;

    if (!std::getline(std::cin, userInput)) {
        std::cout << "error: failed to get user input" << std::endl;
        std::exit(EXIT_FAILURE);
    }

    if (userInput.empty()) {
        std::cout << "error: input can't be empty :)" << std::endl;
        std::exit(EXIT_FAILURE);
    }

    return userInput;
}

void reverse_file(std::string inputFileName, std::string outputFileName) {
    std::ifstream inputFile(inputFileName, std::ios_base::binary);
    std::ofstream outputFile(outputFileName, std::ios_base::binary);
    std::istreambuf_iterator<char> inputBegin(inputFile);
    std::istreambuf_iterator<char> inputEnd;
    std::ostreambuf_iterator<char> outputBegin(outputFile);
    std::vector<char> inputData(inputBegin, inputEnd);

    std::reverse_copy(inputData.begin(), inputData.end(), outputBegin);
}

int main() {
    // get user input
    std::string userInput;
    std::cout << "input some text!" << std::endl;
    userInput = getUserInput();
}
```

```

// store it in txt file append style
std::ofstream targetFile;
targetFile.open(TARGET_FILE, std::ios_base::app);
targetFile << userInput;
targetFile.close();
std::cout << "your input has been appended to the data in CSC450_CT5_mod5.txt" << std::endl;

// make reversed version
reverse_file(TARGET_FILE, TARGET_FILE_REVERSED);
std::cout << "CSC450_CT5_mod5.txt's data has been reversed and stored in CSC450-mod5-
reverse.txt" << std::endl;

// end!
std::cout << "this is the end of the program :)" << std::endl;
return 0;
}

```

Screenshots:

```

● PS C:\Users\joshir\school\Prog3Class\mod5_CT\output> cd 'c:\Users\joshir\school\Prog3Class\mod5_CT\output'
● PS C:\Users\joshir\school\Prog3Class\mod5_CT\output> & .\'mod5_ct.exe'
input some text!
hi ..... woooooooooooooooooooooooooooo
your input has been appended to the data in CSC450_CT5_mod5.txt
CSC450_CT5_mod5.txt's data has been reversed and stored in CSC450-mod5-reverse.txt
this is the end of the program :)
○ PS C:\Users\joshir\school\Prog3Class\mod5_CT\output>

```

CSC450_CT5_mod5.txt

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\joshr\school\Prog3Class\mod5_CT\output> cd 'c:\Users\joshr\school\Prog3Class\mod5_CT\output'
```

```
PS C:\Users\joshir\school\Prog3Class\mod5_CT\output> & .\'mod5_ct.exe'
```

```
input some text!
```

```
hi ..... WOOOOOOOOOOOOOOOOOOOOOOOOOO
```

your input has been appended to the data in CSC450_CT5_mod5.txt

CSC450_CT5_mod5.txt's data has been reversed and stored in CSC450-mod5-reverse.txt

```
this is the end of the program :)
```

PS C:\Users\joshir\school\Prog3Class\mod5_CT\output>

```
mod5_ct.cpp  CSC450-mod5-reverse.txt  CSC450_CT5_mod5.txt

CSC450-mod5-reverse.txt
1  000000000000000000000000w ..... ih
2
3
4
5  .detcepxe sa gninoitcnuf ton si margorp ruoy neht ,deteled era senil eerht tsrif eseht fI
6
7
8  .elif txet siht ot atad ruoy dneppa ot erus eb esaelp

PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS
● PS C:\Users\joshir\school\Prog3Class\mod5_CT\output> cd 'c:\Users\joshir\school\Prog3Class\mod5_CT\output'
● PS C:\Users\joshir\school\Prog3Class\mod5_CT\output> & .\'mod5_ct.exe'
input some text!
hi ..... wooooooooooooooooooooo
your input has been appended to the data in CSC450_CT5_mod5.txt
CSC450_CT5_mod5.txt's data has been reversed and stored in CSC450-mod5-reverse.txt
this is the end of the program :)
○ PS C:\Users\joshir\school\Prog3Class\mod5_CT\output> []
```

Github repository: https://github.com/Joshuamrollo/Prog3Class/tree/main/mod5_CT