

Minh Nguyen

Lab 5

CS 162

Design

For question 1 of lab 5, I will create two input.txt files, one called input1.txt, and the other input2.txt. I will write the numbers 1-10 in even numbers in input1, and 1-10 in odd numbers for input2. Then declare 2 stringstream variables in the main function. Using a vector and the push_back function, I will extract every integer from each input files and add them to this vector. Once both files are extracted using the stringstream, it will be converted to an integer since I will set two int variables temporary store the integers read from the input files. Then using a for loop to go through the vector to be printed onto an output file.

For Question 2 of the lab, I will initialize 4 variables. A stringstream, a string, an int, and a boolean variable. Then the function will prompt the user to enter in an integer and will be extracted with getline to the string variable. Then a while loop that runs with the condition of the boolean value to be false will allow for extraction of the integer using the stringstream variable. If an integer is extracted, then the boolean value returns true and the loop ends. If there is no integer extracted, then getline is cleared and the user is prompted to try again until the integer is found for the boolean value to be true to end the program.

Testing

For question 1, To test the program, I created two for loops. One to print to the output file, and one to print to the screen to see if the vector was able to read everything written in the two input file.

For question 2, testing the program required a simple running of the program and entering in different characters for the user input to see if the loop works. Entering in no integer results in the else statement in the while loop to be read and prompts the user to enter another input. The loop does not end til the user enters an integer.

Reflection

This lab gave me very good practice and insight on the syntax of the stringstream and I/O files. I now have a firm grasp of how to extract integers using stringstream, as well as manipulating it with vectors. I understand the use of input and output files, although it seems as though for our purposes we don't really need it all too much. Nonetheless, I was able to grasp these concepts with little trouble and this lab proved so.