

CS 120 Project 1

Due on Blackboard by Friday, February 2

For this project, you will demonstrate File I/O, user input, and output manipulation.

Design

Consider the following questions:

- What input will you prompt from the user?
- What potentially bad input could the user enter?
- What will you read and write to files?
- How will you display the output to the console?

Some examples:

- Ask the user for a year (within a reasonable range of years). Read from a file that contains the hit songs from that year and display the artist, song, number of weeks on the charts, etc. Write the user's year choice to a file so that you can keep track of the most requested years.
- Ask the user to choose a sports team. Read from a file and display the team players with their stats. Ask the user for their favorite player and write their response to a file.
- Ask the user to input 10 numbers. Display stats on the numbers (min, max, median, mean) and write the data and stats to a file. Give the user an option to search past numbers and read them in from a file, printing them to the console.
- Complete a Mad Libs - style word game. Read from a file the sentence and the parts of speech of the words needed (noun, adjective, etc.), ask the user to input the words and display the resulting silly sentences to the console and to a file.

Implement

You must receive input from the user, including at least one numerical value.

You must check for bad user input (for all numerical inputs).

You must read from a file and write to a file (they can be the same file, if appropriate).

You must use at least four different types of output manipulations you learned in class.

You must submit via Blackboard your .cpp file(s) and your file(s) to read/write.

Test

Make sure you test your program thoroughly, catching and dealing with any possible input from the user.

Grading

The project is out of 50 points.

- 5 pts Compiles and runs.
- 5 pts Style. Readable, naming style is consistent, comments where appropriate.
- 5 pts Receives input from the user.
- 10 pts Handles bad input.
- 10 pts File I/O works correctly.
- 7 pts Console I/O works correctly.
- 8 pts Uses 4 different types of output manipulations.