2017 Fall CIS 200 – Lab 6

Assign date: October 18, 2017

Due date: November 1, 2017

Program:

Read in a file of positive integers (>0) from “integer.dat” (perform file validation – e.g. file exists, empty file, etc.) and create a doubly linked list of integers in ascending sorted order – print out any error messages to the screen and to a file “log.txt” if the integer is <1 but continue processing.

Write a method to print the entire list in ascending or descending order (input parameter ‘A’ or ‘D’ tells direction to print).

In addition, include as part of the list a doubly linked “sub-list” of only even integer numbers. This means that there are FOUR pointers for each entry in the list – forward/backward full list, forward/backward even list.

Write a method to print the even number list in ascending or descending order (input parameter ‘A’ or ‘D’ tells direction to print).

The main method will allow the user to add (remember must be >0) or delete integers from the list and print the entire list or the even number list in ascending or descending order. The action will be written to the screen and to the log file.

Notify the user with a message if the number to add is already in the list or if the number is not in the list if they to delete a number not in the list.

Remember to have appropriate welcome and ending messages to the screen and the log file.