SOLAR NATALIA Asg04.docx

Assignment 4 Feedback

Input Validation Methods	20 pts.
Pattern Display Method	30 pts.
Random Numbers in Files Method	20 pts.
File Analysis	30 pts.

TOTAL: 100 pts.

Total Score 97/100

Input Validation Methods

20/20

Pattern Display Method

30/30

Random Numbers in Files

20/20

File Analysis

27/30

```
public static int fileAnalysis (String inputFileName, String outputFileName) throws
IOException
    {
        int number;         //to hold numbers from input file
        int total =0;       //to hold the sum of the numbers
        int counter = 0;    //counter for number
        int smallest = 1;   //to hold the smallest number
        int greatest = 0;   //to hold the greatest number

        // Open the file. At this point an exception may be thrown
        File file = new File(inputFileName);
        Scanner inputFile = new Scanner(file);

        // This loop processes the lines read from the file,
        // until the end of the file is encountered.
        while (inputFile.hasNext())
```

Commented [AV1]: All good except for this initialization. Definitely not going to work on a job interview!
Error- generating case #1: All numbers in file are negative. Then the "dummy" greatest value becomes an actual greatest in the set.
Error- generating case #2: All values in file are larger than 55. Your choice of initial value for smallest makes it the smallest value of all.
The right way to do it: read the first value from file – make it to be smallest & largest. When doing that consider a possible issue: file you are reading from might be empty.

```
        {
            // Read an integer from the file.
            number = Integer.parseInt(inputFile.nextLine());
            if (number>greatest)//check if the number is bigger than the previous number
            {
                greatest = number;//set the number to be the greatest
            }
           else if (number<smallest) //check if the number is smaller than the previous
number
           {
              smallest = number; //set the number to be the smallest
           }
            // Add number to the value of total.
            total += number;
            counter ++; //increment the counter
        }

        // Close the file.
        inputFile.close();

        // Open the new file.
        PrintWriter outputFile = new PrintWriter(outputFileName);

        // Write the new data to the file.
        outputFile.println("Numeric data file name: " + inputFileName);
        outputFile.println("Number of integers: " + counter);
        outputFile.println("The total of all integers in file: " +total);
        outputFile.println("The largest integer in the set: "+greatest);
        outputFile.println("The smallest integer in the set: " + smallest);

        // Close the file.
        outputFile.close();

        return counter;
    }
}
```