**Preconditions**:

A completed and functional generate\_solution.java program. If this isn’t working perfectly, that will also impact this current assignment’s final grade calculation.

Recall, this is the functionality of that program (refer to prior assignment for the full details):

A computer code with black text

Description automatically generated

**TODO**:

Create a program that will process the file generated above and have this interface and behavior:

A close-up of a computer code

Description automatically generated

As you can see the last output line shows a statistical description of the data in the file. Note that the computed values make sense based on how the data was generated above. For example, the avg is roughly in the ‘middle’ of the lower and upper bounds, which makes sense given that the data was randomly generated (uniformly) between those two numbers. Note the timing information and the number of lines in the file processed per second, gives us some idea of how fast our program can process data.

Here is some more example output:

A screenshot of a computer program

Description automatically generated

But then if I run it on a short file:

A black text on a white background

Description automatically generated

Take a look over the above, and then write a java program with the exact same name as shown above and with the exact same behavior and functionality.

Just to make sure that you get the same answer as I do, I will provide this datafile for you to test it on:

A screenshot of a computer program

Description automatically generated

**TODO:**

1. Document code completely
2. Create report that explains every step you took, how every part of the code works
3. Take screenshots of it working under a variety of conditions and scenarios – should be like mine above that showed the generation and processing of files together

**Submission:**

1. Zip everything together
   1. The two java files (do NOT submit .class files)
   2. The report
   3. One test file (called my\_test\_file.txt) that was generated from your generate program using bounds -10, 100, with 10K lines. Processing this one should at least be shown in report – remember in general, the bounds are inclusive, so if the number of lines is large enough, statistically, the bounds should appear in the file as the max and mins.