**Unit 7 Assignment**

Laurence T. Burden

Purdue Global University

IN300: Programming for Data Analysis

John Brooks

June 8, 2021

**Python Code and Results**

**File A**

**Text

Description automatically generated**

**File B**

**Text

Description automatically generated**

**R Code and Results**

**File A**

**A screenshot of a computer

Description automatically generated with medium confidence**

**File B**

**Graphical user interface, text

Description automatically generated**

**Java Code and Results**

**File A**

**Graphical user interface, application

Description automatically generated**

Graphical user interface, text, application, email

Description automatically generated

**File B**

**Graphical user interface, text, application

Description automatically generated**

**Compare and Contrast Languages**

There are differences among all three languages for these types of calculations. Java continues to stand out as the most time-consuming and most difficult. The amount of boilerplate code is huge. With file A clocking in at over 60 lines of code. Java also gave me an issue where it would not allow the program to run until I added a try/catch around the scanner object. An Unhandled fileNotFound Exception was thrown each time I attempted to run the program. Java is a great language for many things, but quick calculation type programs do not appear to be one.

Python and R are very similar in the amount of code that was needed for this assignment. R had a slight advantage of not needing an external library to accomplish the calculations. NumPy is a very well-known and well-used package, though. I appreciated that I did not have to write the algorithms for mode, median, and standard deviation, as well. Overall, I continue to prefer Python for its syntax.