Intro to Java Week 1 Research Assignment

**Points possible:** 30

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| Category | Criteria | % of Grade |
| Accuracy | Is the information accurate? | 25 |
| Organization | Is the essay clean and organized? Ideas are presented in a logical order. | 25 |
| Citations | Students reference and cite at least 5 sources. | 25 |
| Completeness | All requirements of the assignment are complete. | 25 |

**Instructions:** In however many words necessary, write a thorough essay response to each of the below prompts. Be sure to include at least 5 references for this assignment. Do not copy and paste text from the internet or any other source; use the information you find in your research, summarize, in your own words, the concepts. Plagiarism will result in a zero for the assignment as well as disciplinary actions. Push this document to your GitHub repository for this week. Add the URL for this week’s repository to this document where instructed and submit this document to your instructor when complete.

**What is git? Why is it useful? What is the git workflow?**

It is a system that allows multiple people to work on the same project without interfering with one another’s work (or erasing it). This system is useful because multiple people can do the project at once and accomplish things together in a timely manner. A git flow is the proper way to us git to accomplish work in a consistent and productive manner.

**What are the 8 primitive data types in Java? What makes them each unique? What values can they hold?**

Byte: It is useful when it comes to saving large memory. It has a minimum of -128 and a maximum value of 127. This is 8-bit signed two complement integer.

Short: can use this to save memory in a large array. This minimum value of -32,768 and a maximum value of 32,767. This is also a 16-bit signed two complement integer.

Int: We would use this data type as an unsigned integer.

Long: This is a two complement integer that has 64 bits

Boolean: This had true or false statements and has one bit in it.

char: This one has Unicode character and has 16 bits

float: This represents ieee 754 floating point like a floating number this has 32 bits.

Double: this contains ieee 754 floating point and this too contains 64 bits

**What is your favorite thing you learned this week?**

My favorite thing and so far the most challenging thing would be the pushing of home work (or pull request). This is so far out of my norm in my daily life and in the things I have studied for in the past that is scares and excites me at the same time.

**References:**

<https://docs.microsoft.com/en-us/azure/devops/learn/git/what-is-git>

<https://www.atlassian.com/git/tutorials/comparing-workflows>

<https://docs.oracle.com/javase/tutorial/java/nutsandbolts/datatypes.html>

<https://www.geeksforgeeks.org/data-types-in-java/>

**URL to GitHub Repository:**

[**https://github.com/samsquanch27/MyFirstProject**](https://github.com/samsquanch27/MyFirstProject)