William Czajkowski

1. What is git? Why is it useful? What is the git workflow?

Git is a software platform that is used for source code management. It is useful because it allows several individuals to work on the same code at the same time. The git workflow is broken down into 3 areas, the working directory, the staging area (also called the Index) and the Git directory (also called the Repository). In the working directory, you modify your files to accomplish what ever task you've been assigned. Then, you stage those files in the Index and prepare them for the final move. From the Index, they are committed to the Repository.

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

The 8 primitive data types in Java are *int, double, float, long, short, char, boolean,* and *byte*. An *int,* known as integer, is used to represent non-fractional number values, ranging from -2,147,483,648 to 2,147,483,647, and is stored in 32 bits of memory. The *byte* is similar to *int* but can only hold a range of non-fractional values between -128 and 127 and only takes up 8 bits of memory. The *short* is used to represent a range of non-fractional values between -32,768 to 32,767, taking up 16 bits of memory. The *long* is used to represent the largest range of non-fractional values of the available data types, ranging from -9,223,372,036,854,775,808 to 9,223,372,036,854,775,807, and is stored in 64 bits of memory. The *double* is used to represent fractional numbers, ranging from 4.9406564584124654 x 10^-324 to 1.7976931348623157 x 10^308 in either the positive or negative, and is stored in 64 bits of memory. The *float* is also used to represent fractional numbers, just more basic ones. Its range is 1.40239846 x 10^-45 to 3.40282347 x 10^38 in either the positive or negative and is stored in 32 bits of memory. The *boolean* is used to represent either true or false and uses a single byte of memory. The *char* is used to represent characters, ranging from "\uoooo" to "\uffff" and is stored in 16 bits of memory.

URLs:

https://www.baeldung.com/java-primitives

https://www.simplilearn.com/tutorials/git-tutorial/what-is-git