

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

Git is a software that keeps track of every change done to a code project worked on by multiple people. Git allows a team of programmers to work on the same project and keep track of changes done to the code, by who and when the change was made. If a mistake happens, Git allows you to load a previous-working version of the code. Git workflow is the steps to follow to add or make changes to a remote repository. The steps are: you start at your local directory; Initialize git, git status to see changes in your local directory, git add to “stage” the changes (where you can choose what changes you want to commit), git commit creates a version of the directory and adds a message, git branch creates a new version of the repository where you can test the new changes, remote and origin selects your destination for the online repository, and finally the push command sends the changes to the online repository.

Sources:

<https://youtu.be/NGeksLUB1e8>

<https://www.atlassian.com/git/tutorials/what-is-version-control>

<https://www.freecodecamp.org/news/what-is-git-learn-git-version-control/>

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 are int, double, float, long, short, byte, char and boolean. Int is an integer that is a whole number positive or negative. Double is a number with decimal places negative or positive. Float is a number with decimal places but more precise meaning less decimal places than a double type. Long is a whole number that can go higher than an int, positive or negative. Short is whole number that's lower than an int, positive or negative. Byte is like an int but with a much smaller value range, even smaller than a short, which helps save memory. Char is a single character inside single quotes. A boolean is of value true or false. The values they can hold are as follow: int: -2,147,483,648 to 2,147,483,647, double: 15 decimal places, float: 7 decimal places, long: -9,223,372,036,854,775,808 to 9,223,372,036,854,775,807, short: -32,768 to 32,767, byte: -128 to 127, char: letter, symbol or space, and boolean: true or false.

Sources:

https://www.w3schools.com/java/java_data_types.asp

<https://youtu.be/xyZmG3g1VC8>