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Week 1 Research

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

- Git is a devops tool: Devops is a well grouped, fast paced, constantly growing **combination of cultural philosophies, practices, and tools.** All coming together to accelerate an organizations ability to present applications at a faster pace.
  Git is a version control system used for tracking changes in computer files.

- Git is useful because it allows a developer to have 1 main branch of code when working on a project. It also allows other developers to create their own branches of code to work on and collaborate. Git also tracks history, also creates backups for developers.

- Git workflow is 3 things, 1: your working directory; your files and saved items stored within your computer. 2: Staging area; where you have your files set up and have snapshots of them. 3: Git directory or repository; perform commits to store your files and snapshots permanently to git directory.
  From there you should have the availability of checking the existing version, make changes, stage, and commit.

2.) What are the 8 primitive data types in java? What makes each of them unique? What values can they hold?
  Java Primitive Data types: Boolean, char (character), byte, short, int, long, float and double.
  Boolean is used to store only 2 values “True and False”. Boolean can tell you whether something is true or false but cannot tell you precise information, like characteristics non-defined by true or false.
  Char is single 16-bit Unicode character. Char holds values of “letters” or numbers “+0”.
  Byte is a data type used to save memory and space in ways. It saves space because it is 4 times smaller than an **integer**; can be used in place of “int” data type.
  Int data type is a 32-bit signed two’s complement integer. Int data type is used for integral values when there is no problem about memory.
  Short data type is a 16-bit signed two’s compliment integer. Short data type can be used to store memory just like byte data type. Short data type is half the size of Int data type.
  Long data type is a 64-bit twos compliment integer. Long data type is used when you need larger values than provided by Int data type.
  Float data type, single precision 32-bit IEEE 754 floating point(; a way to represent real numbers). Float data types value is unlimited. Float data type should never be used for precise values, like currency.
  Double data type is a double-precision 64-bit IEEE 754 floating point. Its value range is unlimited. Double data type is used for decimal values. Double data type should never be used for precise values such as currency.

Works Cited

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