**January 20, 2021**

**Fields and Methods**

Making something final, means you cannot change it. And when declared final, it must be initialized.

Java has a math class, so math.pow(r,2) [this is r^2].

Integers, can be used as *int* (primitive.) or *Integer* ***(this is a class type)***

You don’t need a contructor for primitives.

Integer class can use methods associated with them. (See example in class slides)

Strings are not primitive types, they are their own object (class called string in java)

Strings are only object you can initialize like primitives, bc theyre so wildly used. They can be identified by double quotation mark, (“we”)

“Press F2 to focus” in Eclipse it will offer you options to open the java doc (see next lecture). Java doc gives you all methods associated with the classes in the library.

**Inheritance-** You can inherit (for some classes) other attributes and methods.

When you copy onevariable into another (r2 = r1) they both point to same memory location, they reference the same object. If you change r2, r1 will change too.

**Static Method**- you can don’t need to create an instance to use them. Useful for utility classes.

**Utility Class -** used to create a bunch of static methods.

**Static Fields -** Fields that are accessible to all the objects of that type. (See example in lecture notes)

* These fields are associated with the class.
* Used to keep track of things during your *Run* (for example a counter, or giving something a unique number like for bank account)