**Tutorial on usages of “final” and “static” keywords**

YouTube tutorial link: https://www.youtube.com/watch?v=yImBET6EO8c&index=19&list=PL9DF6E4B45C36D411&t=704s

**class** Thing{

**public** **final** **static** **int** *LUCKY\_NUMBER* = 7;

**public** String name;

**public** **static** String *description*;

**public** **static** **int** *count*=0;

**public** **int** id;

**public** Thing(){

*count*++;

id = *count*;

}

**public** **void** showName(){

System.*out*.println("Object id: "+id+" , "+*description* +": "+name);

}

**public** **static** **void** showInfo(){

System.*out*.println(*description*);

// System.out.println(name); Won't work:

}

}

**class** apples {

**public** **static** **void** main(String args[]) {

Thing.*description* = "I am a thing";

Thing.*showInfo*();

System.*out*.println("Before creating objects, count is: d "+Thing.*count*);

Thing thing1 = **new** Thing();

Thing thing2 = **new** Thing();

System.*out*.println("After I created objects: "+Thing.*count*);

thing1.name = "Bob";

thing2.name = "Sue";

thing1.showName();

thing2.showName();

System.*out*.println(Math.*PI*);

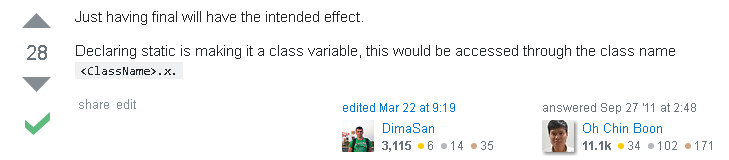
System.*out*.println(Thing.*LUCKY\_NUMBER*);

}

}

* For a static instance, it doesn’t need to have its class declared to be used in the main class (unlike non-static instances). The reason is because there is only one copy of a static instance
* Static methods can only access static data
* However, static methods cannot use non-static field names
* Instance methods, on the other hand, can access static data
* One of examples of final constant numbers is “*Math.PI*”. It cannot be modified

What is the difference between static final and final?



Outside of the class in which they are defined, **static** methods and variables can be

used independently of any object. To do so, you need only specify the name of their class

followed by the dot operator. For example, if you wish to call a **static** method from outside

its class, you can do so using the following general form:

*classname.method*( );