APCS Take Home Quiz #2

Rafi Long

**Object**

Meaning: An object is a container for data and methods that is specified in a class. Objects can be created like variables, and methods specified in the class can be run on them.

ArrayList<Integer> list = new ArrayList<Integer>();

**Comparable**

Meaning: Comparable is an interface that can be extended by classes that allows programmers to create a standardized method that compares objects.

Methods that should be written: compareTo(T o)

Boolean t = new Boolean(true);

Boolean f = new Boolean(false);

int compare = t.compareTo(f);

**.equals**

Meaning: A method that compares two objects and returns whether they are equal or not.

Default return value: boolean (true, false)

String a = "hello";

String b = "good bye"

boolean equals = a.equals(b);

**.compareTo**

Meaning: A method that compares two objects, returns -1, 0, or 1 to indicate if the specified method is less than, equal to, or greater than the this object.

Parameters: T o

Return value(s): int (-1, 0, 1)

Boolean t = new Boolean(true);

Boolean f = new Boolean(false);

int compare = t.compareTo(f);

**Superclass**

Keyword: extends

Meaning: When a class extends another class, the objects of the class that is extending the other automatically allow calls to methods specified in the class that is extended, or the superclass.

public class DijkstrasNode extends Node {

// Node is the superclass

}

**Subclass**

Keyword: extends

Meaning: The subclass is the class that extends the other class, and objects of this class automatically support methods of the parent, or super, class.

public class DijkstrasNode extends Node {

// DijkstrasNode is the subclass

}

**public** methodName

Meaning: A public method can be called from all other classes including the one it is implemented in. These methods are part of the class’s public interface.

public void printStar(int x, int y, int d) {}

**private** methodName

Meaning: A private method can not be called from classes other than the one it is implemented in, and is mainly used for encapsulation.

private void newLine(int lines) {}

methodName (without **public**, **private**, or **protected**)

Meaning: Without public, private, or protected the method can be accessed in it’s class and package.

void interpret(String piglatin) {}

**void**

Meaning: Void means that the method does not return anything, suggesting that it edits other variables inside of the method.

public void foo(int x) {

this.x = x;

}