Chapter 8 CRT

Masen Boyce

1. An has-a relationship refers to a class that includes other objects (ie. a computer class would have a graphics card instance. An is-a relationship refers to a class which inherits other classes (identified by class **extends** class).

2. Both the go() and the stop() methods will be accessible by the derived class.

3. Abstract methods are derived from abstract classes and must include all of the attributes of the parent class whereas with overriding a method allows the class to inherit behaviors from a super class and the overriding method needs to have the same name, parameters, and return type as the parent class but not all of the parent classes attributes.

4. Abstract classes can include any kind of method, whereas interfaces can only include abstract methods. Abstract classes can be inherited while interfaces can't, however interfaces can still be accessed by other classes.

6.

   a) doThat() is an abstract method because it is contained in an interface.
   b) Wo is an interface.
   c) Wo is implemented so that Roo can access the methods contained in Wo.
   d) Roo can use: doThat(), doThis(), doNow() because it extends Bo and implements Wo.
   e) doThis() would return as 10 rather than 2 because Roo overrides Bo.
   f) It determines the value of z in Bo to be 1.
   g) The doThis() in the Bo class can be called to Roo by using a super method (super.doThis()).
   h) A method contained in Roo can call on the doThis() method in Bo using a super method (super.doThis()).