A Bit of Java: from source-code to byte-code

Java Source Code

Java Compiler

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Java Bytecode

Additional Classes

Java Virtual Machine

JVM

Application or Applet
Java Vocabulary

- **Object** - A “real-world” entity that is modeled in software.
- **Method** - essentially a function *called* to modify an object’s behavior, appearance, or content.
  - `Balloon.changeColor("yellow");`
- **Constructor** - A specific method used to create a new “instance” of an object.
- **Class** - a software template comprised of the data and methods *associated* with object creation and manipulation.
- **Instantiation** - the process of creating an “instance” of an object.
  - Ex. `myBalloon = new Balloon("green", 10, 10);`
- **Inheritance** - the acquisition of software traits by a class (child) from its superclass (parent).
  - Ex. `public class myApplet extends Applet`
- **Polymorphism** - from Greek *having many forms*. Within a hierarchy of classes -- i.e. inheritance -- a method with a *common* signature (name) but different scopes (range of influence) is referred to as *polymorphic*.
  - Ex1. `class plane { public void flying() {System.out.println( “See the plane fly.” );} }`
  - Ex2. `class wing { public void flying() {System.out.println( “The wing provides lift.”);} }`