

# Ch6: JApplet

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CMPT167  
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# Quiz 1 (10 min)

- Explain what the **JDK** and **JRE** are and contrast them.
- Explain what an **applet** is.
- How are **comments** done in Java? (both ways)
- Each box in a UML **class diagram** has **three** sections. What are they?
- What **3** steps must be done to any **array** variable before its values can be used?
- Write a complete command-line Java **program** that prints “**Hello World!**”.

● **Doc-comments** not necessary

# Quiz 1: answers #1-3

- Explain what the **JDK** and **JRE** are and contrast them. [4]
  - Java Development Kit: compiler and runtime
  - Java Runtime Environment: just the VM
- Explain what an **applet** is. [2]
  - Small program to be run within a webpage
- How are **comments** done in Java? [2]
  - `/* C-style */` and `// double-slashes`

# Quiz 1: answers #4-5

- Each box in a UML **class diagram** has **three** sections. What are they? **[3]**
  - **Class name, attributes (variables), methods**
- What **3** steps must be done to any **array** variable before its values can be used? **[3]**
  - **Declare, allocate, initialize**

# Quiz 1: answers #6

- Write a complete command-line Java program that prints “Hello World!”. [6]

```
public class HelloWorld {  
    public static void main( String args[] ) {  
        System.out.println( “Hello, World!” );  
    }  
}
```

# Review of last time

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- Math methods
- Standard packages
  - lang, io, net, text, util
  - javax.swing: JApplet, .event
  - java.awt: .event, java.applet
- Type promotion for method parameters
- Scope and duration
  - Block scope vs. class scope

# Method overloading

- **Overloading** is giving multiple definitions for a method with the same name, but different argument **types**

```
public int square( int x ) {  
    return x*x;  
}  
public double square( double x ) {  
    return x*x;  
}  
int y=5; double z=2.3;  
square(y); square(z)
```

- Do we need a **float** version as well?

# JApplet

- JApplet is Swing's way of doing applets

```
import javax.swing.*;  
public class MyApplet extends JApplet {
```

- The **abstract** superclass JApplet defines various methods that our subclass **overrides**:
  - ◆ **public void init()** // when applet is loaded
  - ◆ **public void destroy()** // when applet is removed in memory
  - ◆ **public void start()** // after init() finishes: on page load
  - ◆ **public void stop()** // on page exit
  - ◆ **public void paint( Graphics g )** // on refresh/repaint



# TODO

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- Lab2 due tonight:
  - Arrays (magic square)
  - Preferably not a command-line program
  - Applet or stand-alone GUI program
  - AWT or Swing