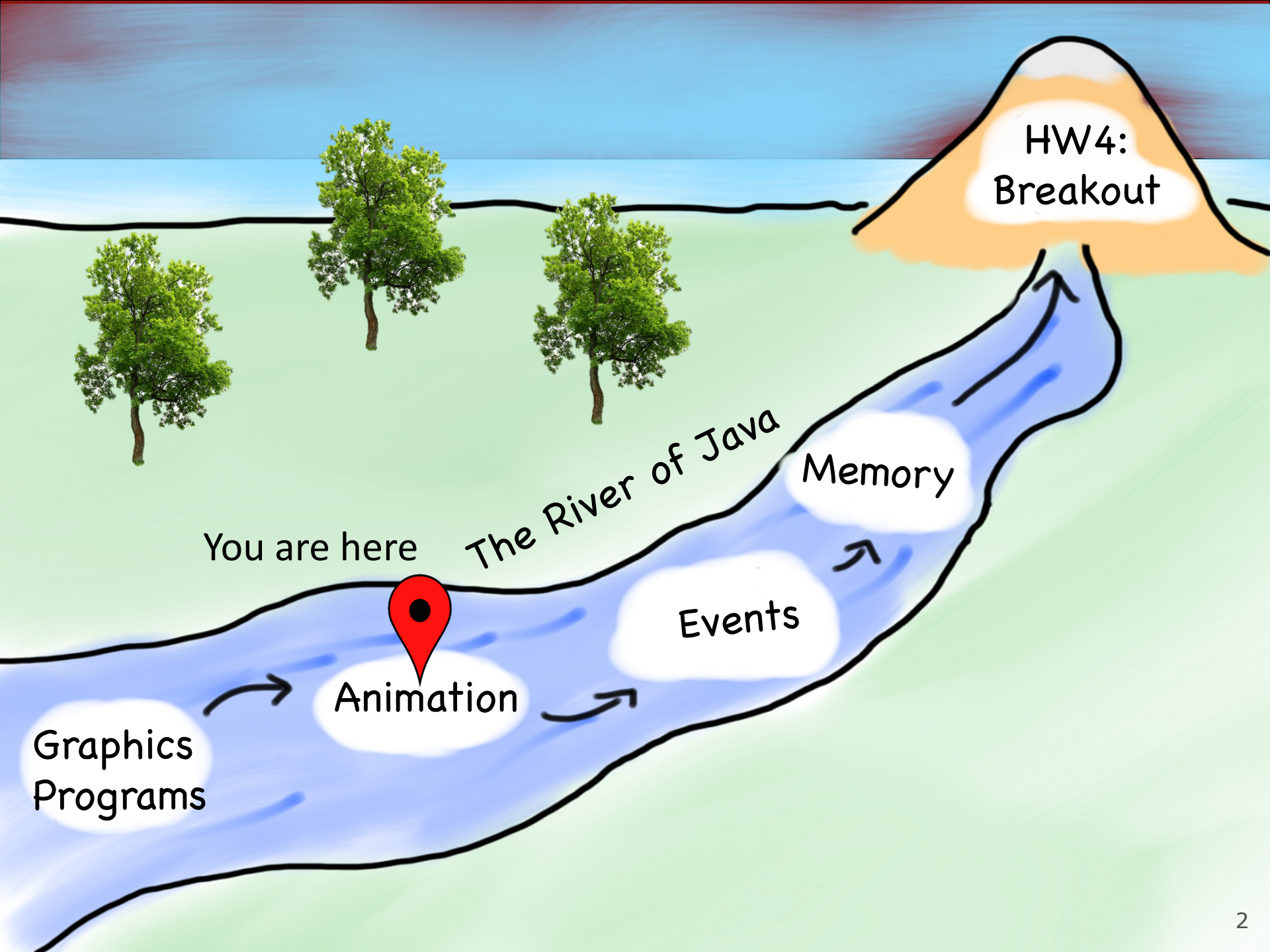


CS 106A, Lecture 13

Animation

reading:

Art & Science of Java, Ch. 9



Plan For Today

- Announcements
- Midterm
- Animation
- Practice: Animated Square
- Practice: DribbleCastle

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Simple animation

- A Graphics program can be made to animate with a loop such as:

```
public void run() {  
    ...  
    while (test) {  
        update the position of shapes;  
        pause(milliseconds);  
    }  
  
}
```

- The best number of ms to pause depends on the program.
 - most video games \sim 50 frames/sec = 25ms pause

Graphical methods

- These methods in graphical objects can be useful for animation:

Method	Description
<i>obj</i> .getX()	the left x-coordinate of the shape
<i>obj</i> .getY()	the top y-coordinate of the shape
<i>obj</i> .getWidth()	number of pixels wide the shape is
<i>obj</i> .getHeight()	number of pixels tall the shape is
<i>obj</i> .move(<i>dx</i> , <i>dy</i>);	adjusts location by the given amount
<i>obj</i> .setLocation(<i>x</i> , <i>y</i>);	change the object's x/y position
<i>obj</i> .setSize(<i>w</i> , <i>h</i>);	change the object's width*height size

- The GraphicsProgram itself has these methods, too:

getWidth()	number of pixels wide the window is
getHeight()	number of pixels tall the window is
setSize(<i>w</i> , <i>h</i>)	change the window's width*height size

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Recap

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Next Time: Interactive Graphics Programs