Announcements

- Read for next time Chap. 4.1-4.5
- Assignment 4 out
- Reading Quiz for next time

Chap. 6 - if

- Condition – must be in ( )’s
- Body of if/else
  - 1 statement OR multiple stmts in { }’s
- Relational operators:
  $== \ < \ > \ >= \ <= \ !=$
- Logic operators:
  $&& \ || \ !$

```java
int x=6;
int y = 9;
if ((x<5) || (y >= 6))
{
    x = 3;
    y= 2;
}
else
    x = 5;
```

Comparing Strings and Objects

```java
String one = "computer";
String two = "com" + one.substring(3,8);
String three = two;
String four = "science";
System.out.println(two);
if (one == two)   // don’t do
    System.out.println("A");
if (two == three)   // don’t do
    System.out.println("B");
```
Comparing Strings (cont)

if (one.equals(two))
   System.out.println("C");
if (two.equals(three))
   System.out.println("D");
if (one.compareTo(four) < 0)
   System.out.println("E");

Null and Objects

Chicken bird = null;
// bird = new Chicken("Pia", 5.2, 4.2);
if (bird != null)
   bird.eat(2.3);

What is an image?

• Lots of pixels
• Each pixel represents a color

Classwork today - Images

• Read in an image.
• Modify transformColor method
  – Given a Color, create and return a new Color
  – See API for Color class
  – “Magically” transformation is applied to all pixels in the image
  – Image is transformed to new image
  – Darken darkens the image
Example: Change red color a little

```java
public Color transformColor (Color current)
{
    int red = current.getRed();
    int blue = current.getBlue();
    int yellow = current.getYellow();
    return new Color(red + 50, green, blue);
}
```

CAREFUL! This could cause an error!