CompSci 6
Programming Design and Analysis

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Announcements

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

• 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

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

One color RGB (45, 10, 67)
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!