Flags (boolean variables)

Chapter 5.6

Using a boolean as a switch

- Using mousePressed as a condition in an if statement doesn't always work as expected
- Declare a boolean as a global variable (meaning declare the variable outside of draw and setup)
  - The variable can be accessed and modified anywhere in the program

```processing
// This program changes color of a square as the mouse is clicked
// Author: dustin adams
boolean pressed;
void setup() {
  pressed = false;
}


void draw() {
  background(150);
  if (pressed)
    fill(255, 0, 0);
  else
    fill(0, 0, 255);

  rect(0, 0, 30, 30);
}


void mousePressed() {
  pressed = !pressed;
}
```

```
// This program changes color of a square if you click directly on it

boolean button = false;
int x = 50;
int y = 50;
int w = 100;
int h = 75;

void setup(){
  size(200,200);
}
void draw(){
  if(button)
    fill(255,0,0);
  else
    fill(0,255,0);
  rect(x,y,w,h);
}
void mousePressed(){
  if(mouseX > x && mouseX < (x+w) && mouseY > y && mouseY < y+h){
    button = !button;
  }
}
```