

# Events



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by Christine Alvarado, Mia Minnes, and Leo Porter, 2015.

# By the end of this video you will be able to ...

- Design user-interface elements
- Write code to implement a button

```
import ...
public class MapWithButton extends PApplet {
    private UnfoldingMap map;

    public void setup() {
        size(800, 600, OPENGL);
        map = new UnfoldingMap(this, 50, 50, 700, 500,
            new Google.GoogleMapProvider() );
        MapUtils.createDefaultEventDispatcher(this, map);
    }

    public void draw() {
        map.draw();
    }
}
```

```
import
public
private
```

```
public
size (
map =
new
MapUt
}
```

```
public
map.c
}
```

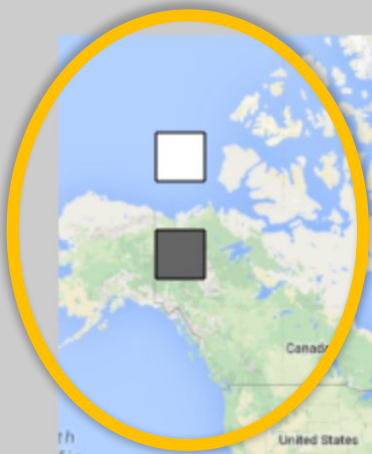
```
}
```

Applet



Applet started.

) ;



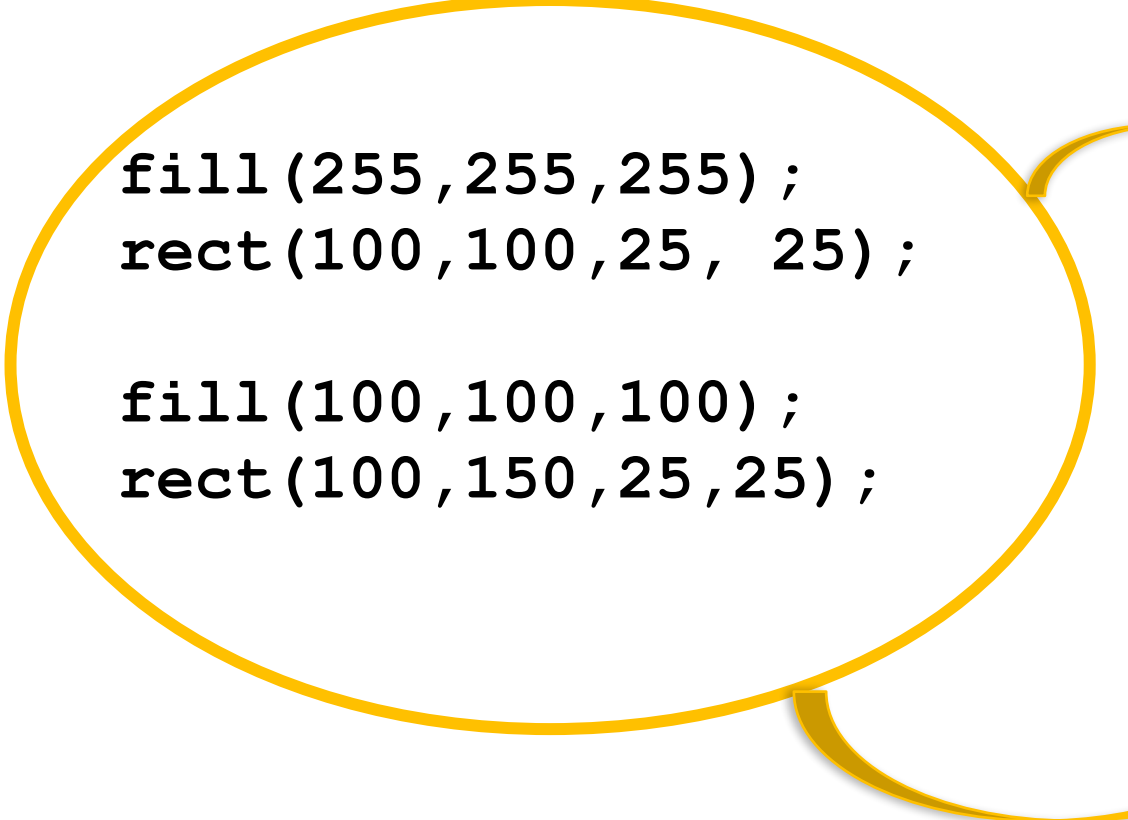
Applet started.

```
fill(255,255,255);  
rect(100,100,25, 25);
```



```
fill(100,100,100);  
rect(100,150,25,25);
```





```
fill(255,255,255);  
rect(100,100,25, 25);
```

```
fill(100,100,100);  
rect(100,150,25,25);
```

```
public void setup() {  
  ...  
}
```

```
public void draw() {  
  map.draw();  
}
```



...

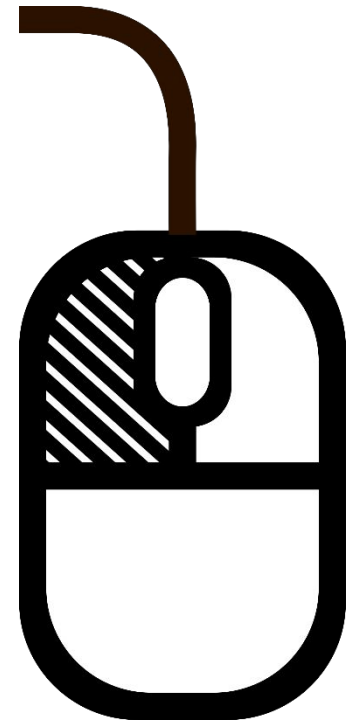
```
public void draw() {  
    map.draw();  
    drawButtons();  
}
```

```
private void drawButtons() {  
  
    fill(255,255,255);  
    rect(100,100,25, 25);  
  
    fill(100,100,100);  
    rect(100,150,25,25);  
  
}
```

```
}
```



```
public void mousePressed () {  
    ...  
}  
  
public void mouseClicked () {  
    ...  
}  
  
public void mouseReleased () {  
    ...  
}
```



```
public void mousePressed () {  
    ...  
}
```

```
public void mouseClicked () {  
    ...  
}
```

**But only on buttons!**

```
public void mouseReleased () {  
    ...  
}
```

...

```
public void draw() {
```

```
    map.draw(100,100) (125,100)
```

```
    drawButton
```

```
}
```

```
private void drawMap(100,125) (125,125)
```

```
    fill(255,255,255);
```

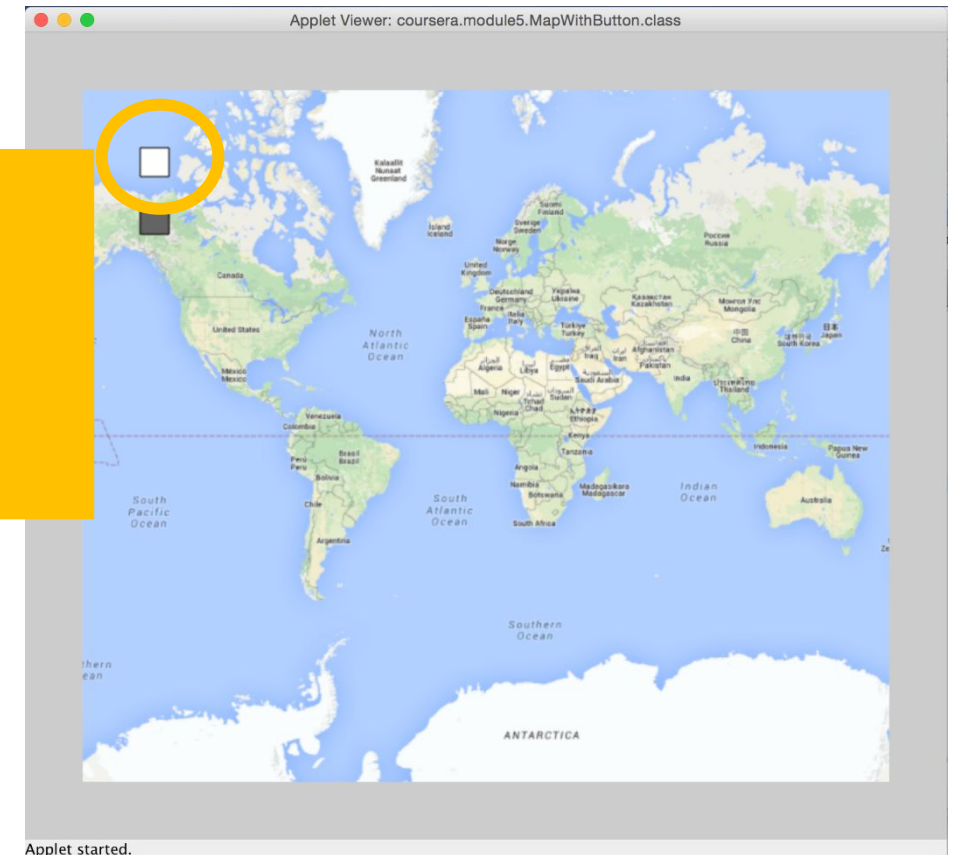
```
    rect(100,100,25, 25);
```

```
    fill(100,100,100);
```

```
    rect(100,150,25,25);
```

```
}
```

```
}
```



```
public void mouseReleased() {  
    if (mouseX > 100 && mouseX < 125  
        && mouseY > 100 && mouseY < 125) {  
  
        background(255,255,255) ;  
  
    } else if (mouseX > 100 && mouseX < 125  
        && mouseY > 150 && mouseY < 175) {  
  
        background(100,100,100) ;  
  
    }  
}
```

...

```
public void draw() {  
    map.draw();  
    drawButton(100,150) (125,150)  
}
```

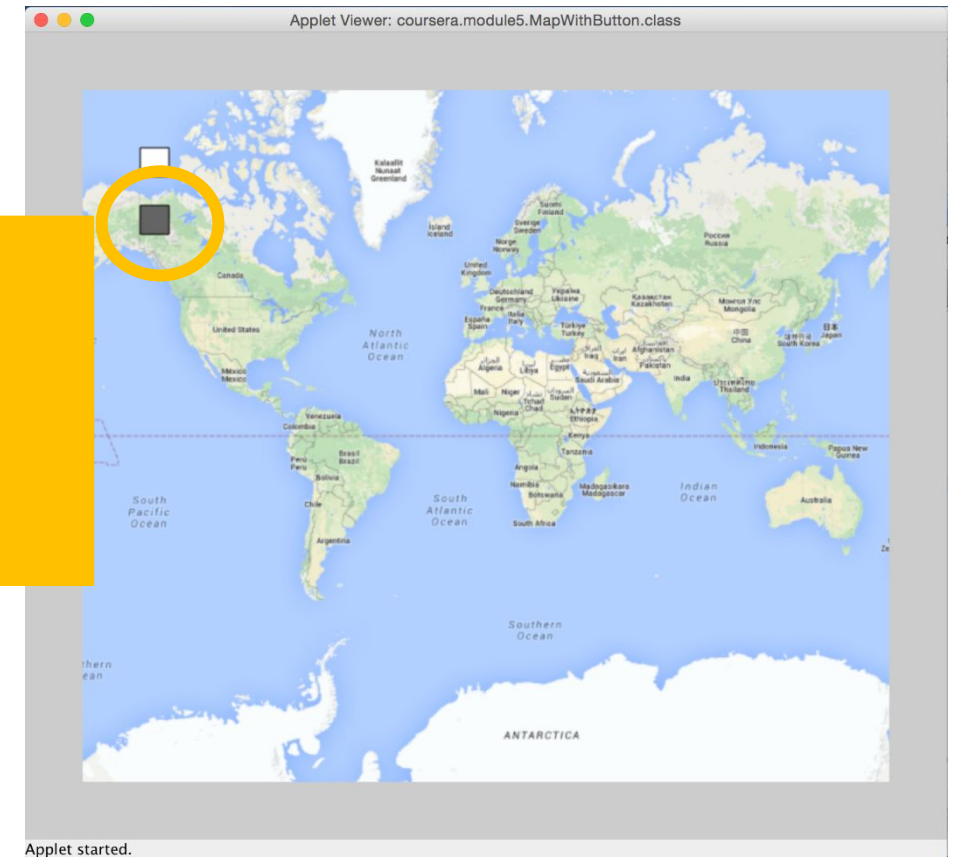
```
private void drawButton(100,175) (125,175)
```

```
    fill(255,255,255);  
    rect(100,100,25, 25);
```

```
        fill(100,100,100);  
        rect(100,150,25,25);
```

```
}
```

```
}
```



```
public void mouseReleased() {  
    if (mouseX > 100 && mouseX < 125  
        && mouseY > 100 && mouseY < 125) {  
  
        background(255,255,255) ;  
  
    } else if (mouseX > 100 && mouseX < 125  
        && mouseY > 150 && mouseY < 175) {  
  
        background(100,100,100) ;  
  
    }  
}
```