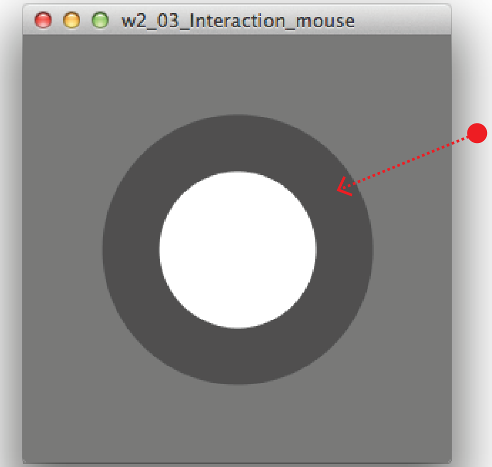
W.02

INTERACTION : MOUSE AND KEYBOARD

[Basic Mouse Interaction]



Normal

Left button pressed

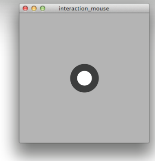
Mouse Dragged

In/Decrease strokeWeight according to mouseX position while left mouse button is pressed and dragged.

```
void mouseDragged(){
  strokeWeightValue = mouseX/10;
}
```

* **mousePressed** is a system variable. mousePressed is true if a mouse button is pressed and false if no button is pressed.

```
 if(mousePressed){
   strokeColorValue = 50 + mouseY/5;
 }
```

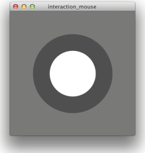


Mouse Pressed

Change Circle size from 150 to 50 pixels. It occurs once when mouse button is pressed.

```
void mousePressed() {
  circleWidth = 150;
}
```

The mousePressed() function is called every time a mouse button is pressed.

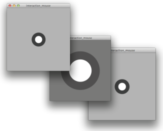


Mouse Released

Change Circle size from 60 to 150 pix. It occurs once when the mouse button is released.

```
void mouseReleased() {
  circleWidth = 50;
}
```

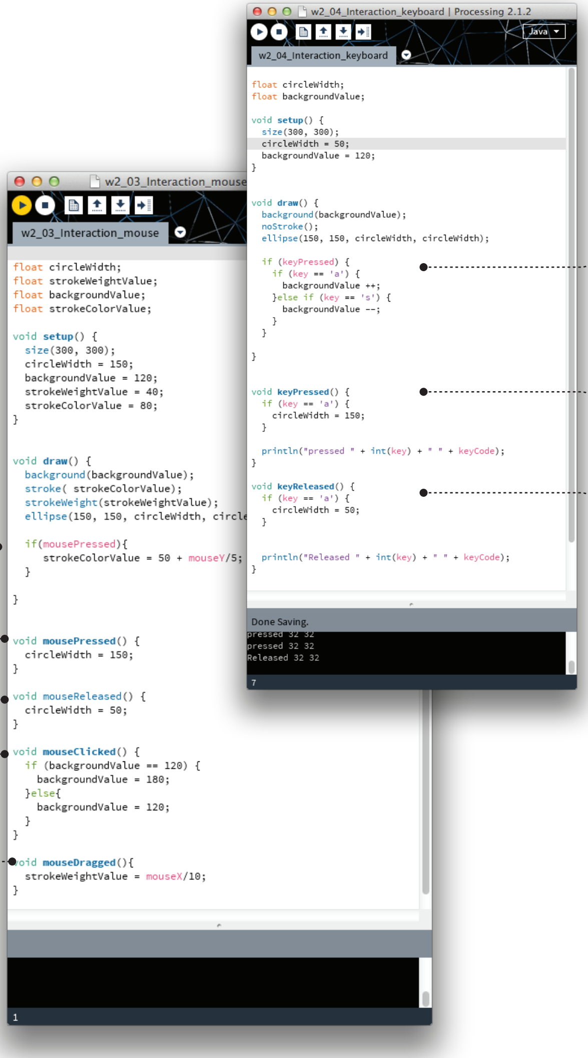
The mouseReleased() function is called every time a mouse button is released.



Mouse Clicked

Switch background color from 180 to 120. It occurs once when mouse button clicked. *Click : pressed and released

```
void mouseClicked() {
    if (backgroundValue == 120) {
    backgroundValue = 180;
  }else{
    backgroundValue = 120;
  }
}
```


w2_03_Interaction_mouse
w2_04_Interaction_keyboard | Processing 2.1.2
w2_04_Interaction_keyboard
Java

```
float circleWidth;
float strokeWeightValue;
float backgroundValue;
float strokeColorValue;

void setup() {
  size(300, 300);
  circleWidth = 150;
  backgroundValue = 120;
  strokeWeightValue = 40;
  strokeColorValue = 80;
}


void draw() {
  background(backgroundValue);
  stroke( strokeColorValue);
  strokeWeight(strokeWeightValue);
  ellipse(150, 150, circleWidth, circle

  if(mousePressed){
     strokeColorValue = 50 + mouseY/5;
  }

}


void mousePressed() {
  circleWidth = 150;
}

void mouseReleased() {
  circleWidth = 50;
}

void mouseClicked() {
  if (backgroundValue == 120) {
    backgroundValue = 180;
  }else{
    backgroundValue = 120;
  }
}

void mouseDragged(){
  strokeWeightValue = mouseX/10;
}
```

```
1
```

```
float circleWidth;
float backgroundValue;

void setup() {
  size(300, 300);
  circleWidth = 50;
  backgroundValue = 120;
}


void draw() {
  background(backgroundValue);
  noStroke();
  ellipse(150, 150, circleWidth, circleWidth);

  if (keyPressed) {
    if (key == 'a') {
      backgroundValue ++;
    }else if (key == 's') {
      backgroundValue --;
    }
  }

}


void keyPressed() {
  if (key == 'a') {
    circleWidth = 150;
  }

  println("pressed " + int(key) + " " + keyCode);
}

void keyReleased() {
  if (key == 'a') {
    circleWidth = 50;
  }


  println("Released " + int(key) + " " + keyCode);
}
```

Done Saving.

```
pressed 32 32
pressed 32 32
Released 32 32
```

```
7
```

[Basic Keyboard Interaction]

Normal Keyboard pressed Keyboard released

* **keyPressed** is a system variable. "keyPressed" is true if a keyboard button is pressed and false if a keyboard is not pressed.

In this sketch the background color becomes darker when keyboard 's' is pressed, and become lighter when keyboard 'a' is pressed.

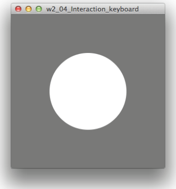
```
if (keyPressed) {
  if (key == 'a') {
    backgroundValue ++;
  }else if (key == 's') {
    backgroundValue –;
  }
}
```

Keyboard Pressed

Change Circle size to 150 when key 'c' is pressed.

```
void keyPressed() {
  circleWidth = 150;
}
```

The keyPressed() function is called every time a key is pressed.



Keyboard Released

Change Circle size to 50 when key 'c' is released.

```
void keyReleased() {
  circleWidth = 50;
}
```

The keyReleased() function is called every time a key is released.