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جامعة كارنيغي ميلون في قطر
Carnegie Mellon Qatar

www.qatar.cmu.edu

SCPP CS Project

2016

Lecture 8

Quiz

Drawing

Administrivia

Conditionals

Magna Doodle



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1. Declare a variable of type boolean named confused and initialize it to false.
2. What gets printed when you run this?

```
void setup() {  
  int someNumber = 7;  
  if( someNumber > 5 ) {  
    println("I am greater than five!");  
  }  
  else if( someNumber > 3 ) {  
    println("I am greater than three!");  
  }  
  else {  
    println("I am super small!");  
  }  
}
```

3. a) How many times will this while loop run?
b) What could you add to make it only run 10 times?

```
void setup() {  
  int x = 0;  
  while( x < 10 ) {  
    println(x);  
  }  
}
```



Let's make something pretty!

Check out some new functions:

```
void setup() {  
  size(640,480);  
  background(255,0,0);  
  
  fill(0,0,255);  
  ellipse( 100, 200, 50, 50);  
}
```

Before we go typing them in, though, let's find out what **should** happen **before** we run it!

You, the new masters of APIs: I bid you visit **processing.org/reference** and tell me what each function does.

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```
import edu.cmu.ri.createlab.terk.robot.finch.*;

Finch sean;
double t;
void setup() {
    sean = new Finch();
    t = 0;

    while(true) {
        t = sean.getTemperature();
        println( t );
    }
}
```

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```
import edu.cmu.ri.createlab.terk.robot.finch.*;
```

```
Finch sean;
```

```
double t;
```

```
void setup() {
```

```
    sean = new Finch();
```

```
    t = 0;
```

```
    // And now I go off to draw!
```

```
}
```

```
void draw() {
```

```
    // I run over and over again
```

```
    t = sean.getTemperature();
```

```
    println( t );
```

```
}
```

How does this help us do cool drawing stuff?

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1. mouseX and mouseY
2. mousePressed
3. `PImage kitten=loadImage("kitten.jpg");
image(kitten,550,20);`

```
void setup() {  
    size(800,800);  
}
```

```
void draw() {  
    fill(255,0,0);  
    ellipse(mouseX,mouseY,10,10);  
}
```

Where are we?

8/1

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Final Exam: 8/7

Final project work days: 4.5 (8/2 (.5), 8/3-8/4, 8/8-8/9)

Last class day/Demo Day: 8/10



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Final Project Details

Yes, you can have a partner. No, you can't have two partners... unless you have an incredibly fantastic project idea that won't be possible otherwise.

It should showcase what you've learned and be challenging for your team. It should be scoped appropriately.

It should be awesome.

Deliverables:

Presentation on 8/10 (demo day)

Setup for SCPP showcase on 8/10

Design a poster for the showcase

Tomorrow:

- * Decide what you want to do
- * Form your group if needed
- * Get me a single page with the members of your team, the project that you want to do, and the schedule of development for the 4.5 working days



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Merging conditions:

Because sometimes you want nachos && salsa.

```
while( (numNachos > 10 ) && ( hasSalsa == true ) ) {  
    println("PARTY!");  
}
```

```
if( ( tired == true ) || (night == true) ){  
    println("time to sleep");  
}
```



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```
int x = 5;  
int y = 3;
```

```
if( (x == 4) || ( (x == 5) && (y == 4) ) ) {  
    println("a");  
}  
else if( ( (x == 5) && (y == 4) ) || (x == 5) ) {  
    println("b");  
}
```



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Demo:

www.cs.cmu.edu/~merichar/scpp

– click on Assignments

Get to it.

APIs are still at...

processing.org/reference

