



Inspiring innovations that change the world.

جامعة كارنيغي ميلون في قطر
Carnegie Mellon Qatar

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SCPP CS Project

2016

Lecture 7

Quiz

Activity: Morse Finch

Drawing

Interactive Drawing



Lecture 7

Quiz

Activity: Morse Finch Drawing Interactive Drawing

1. Declare a variable of type integer named age and initialize it to 17.

2. Look at the code below

```
Finch abe = new Finch();  
void setup() {  
  double temperature = 0;  
  
  while( temperature < 29 ) {  
    temperature = abe.getTemperature();  
  
    if( temperature < 25 ) {  
      abe.setLED( 0, 0, 255 ); // blue  
    }  
    else {  
      abe.setLED( 255, 0, 0); // red  
    }  
  }  
}
```

- What temp range(s) will turn abe's nose blue?
- What temp range(s) will turn abe's nose red?
- When will this code stop running?
- What would happen if we moved the line
temperature = abe.getTemperature()
to above the while loop?
- What is the data type of temperature?
- What data type does abe.getTemperature() return ?



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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.



Lecture 7

Quiz

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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 );
    }
}
```



Lecture 7

Quiz

Activity: Morse Finch
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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?

Lecture 7

Quiz

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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);  
}
```

