Inspiring innovations that change the world.

جامعة كارنيجي ميلون في قطر
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SCPP CS Project

2016

Lecture 3

Quiz
Administrivia
Setter Methods
Blocking
Activity: Autopen
Primitive data types
Getter methods
Functions
Control structures
Activity: Morse Finch

1. What is the difference between program A and program B?

A:
```
Finch sharjeel = new Finch();
sharjeel.setLED(0,0,255);
sharjeel.setWheelVelocities(255,255);
```

B:
```
Finch sharjeel = new Finch();
sharjeel.setLED(0,0,255,1000);
sharjeel.setWheelVelocities(255,255);
```

2. What is an API?

Lecture 2

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```
Finch amna = new Finch();

amna.setLED(0,255,0);
amna.setWheelVelocities(255,255);
```

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The Critters:

boolean – true/false
byte - 8 bits
char – single character
color - … a color
double - 64 bits, can be a decimal number
    3.40282347E+38 to -3.40282347E+38
float – light double (32 bits)
int - 32 bits, no decimal.
    2,147,483,647 to -2,147,483,648
long - supersize int
    9,223,372,036,854,775,808 to
        -9,223,372,036,854,775,808

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Making them useful:

```
boolean isSleepy;  // declaration
isSleepy = true;    // assignment

int numStudents;
numStudents = 13;

double temp;
temp = 25.7;

color red;
red = color(255,0,0);
 - or -
red = #ff0000;
```

Pro Tip: You can init in the same line as you declare!

```
boolean isSleepy = true;
```

Let's find out what temperature it is!

```
Finch abe = new Finch();
double temp = abe.getTemperature();
println(temp);
```

Why a double?