

CS231 Fall 2013 Lecture 2

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1 Administrative

- Go over HW.
- We take the quiz.
- Pass out the syllabus.
- If you have a specific Java question, I find that the StackOverflow website is helpful. I often Google a Java question, and if a link to StackOverflow shows up, I follow that. The other link website I use heavily is that of Oracle, the company that owns Java.
- For reference, today's topics are mostly covered at
<http://docs.oracle.com/javase/tutorial/java/nutsandbolts/index.html>

2 More Java Syntax

- *main methods*: But all Java is just declarations of classes. But how do you write and run a program?

Answer: Include a method in your class with signature `psvm`. When you try to run your class file, the Java runtime interpreter will look in your class for a method with that name and will run it.

```
public static void main( String [] args )
```

We introduce the term *static*, which means that a method or field is a class-method or class-field, rather than an object-method or object-field. You refer to it using `Class.` notation rather than `obj.` notation. A static method cannot refer to any non-static fields.

We also introduce *arrays*, which are indicated by empty square brackets. There are actually two ways to indicate something is an array.

Preferred in Java:

```
String [] args
```

Works in Java, but isn't preferred. It is legal because it is the standard in C:

```
String args []
```

[Add main method to Die.java and run it again]

- *Variables*: Variables are declared with a type and can only hold objects of that type. Therefore, if you declare a variable `Die d`; then `d` can only refer to objects of class `Die`.
- *System.out.println*: We add a second die and print out the sum. Note how we created 2 objects and told them to do things. We also told the `System.out` object to do something. OOP is creating objects and having them communicate. `System` is a built-in class with a static field called `out`. It is the way we get information to the Terminal.
- *if-statements*: If-else statements use parentheses and curly braces. There are no `elif` or `else if` statements.

Note: These notes were adapted from those of Dale Skrien.