

A Crash Course in Java

CAC 210

Biggest Difference from Python

- Every command ends in a semi-colon with the exception of decision statements and function declarations
- Comparable to a period in English.

Remind me...

- What's a variable?
- How is it used?
- Are there different types of variables? If so, what are they?

Primitive Types

- `int`: holds integer values
- `double`: holds floating point values
- `boolean`: holds true false
- `char`: holds characters (single letter)

Declaring a Variable

- Java is statically-typed so it expects its variables to be declared before they can be assigned values
- What was Python?

Declaring a Variable

- Java is statically-typed so it expects its variables to be declared before they can be assigned values
- What was Python? Dynamically-typed. We were able to assign values to the variables without specifying a type. Python determined how much space the value needed.

Declaring a Variable

Declaration Statement:

`type name;`

Initialization Statement:

`name = value;`

Declaration and Initialization:

`type name = value;`

Example:

`int number;`

Initialization Statement:

`number = 5;`

Declaration and Initialization:

`int number = 5;`

Worksheet

Getting Started

- Remember classes?
- What is a class?

Getting Started

- Remember classes?
- What is a class? A template for how we will design something like a dog, car, employee, or a bank account.
- In Python, we did not have to use classes; however, in Java, everything is an object. We must always have a class, and the name of our file must be the same as the name of our class.

Getting Started

```
public class Example
{
    public static void main(String[] args)
    {
        ...
    }
}
```

Command line
arguments

This is the driver to your program. When you compile your code (turn it into an executable) and run it, this is where the computer begins executing the code

Output

`System.out.print();`

`System.out.println();`

- What do you think is the difference?

Worksheet

Install Eclipse

You Write

- Write a Java program that has a variable *a* holding the value 5, a variable *b* holding the value 8, a variable *c* holding the sum of *a* and *b*. Print out the contents of *c*.
- Write a Java program that asks the user for the dimensions of a room and prints the area of the room.

For Next Class

- Read Java Data Types and Java Conditionals in the Java for Python Programmers textbook