BASIC TRAINING

Outline:

- Hello World!
- calculator/basic math
- strings
- variables
- basic control statements
  - indentation!

Hello, World.

follow along the code at:
http://bit.ly/bootcamp-lecture1-2013

C++

file: hello.cpp

```
#include <iostream>
int main()
{
  std::cout << "Hello World!" << std::endl;
}
```

```
BootCamp> g++ -o hello hello.cpp
BootCamp> ./hello
Hello World!
BootCamp>
```

FORTRAN

file: hello.f

```
      PROGRAM HELLO
      WRITE (*,100)
      STOP
  100 FORMAT (' Hello World! ' /)
      END
```

```
BootCamp> g77 -o hello hello.f
BootCamp> ./hello
Hello World!
BootCamp>
```

Java

file: hello.java

```
class HelloWorld {
  static public void main( String args[] ) {
    System.out.println( "Hello World!" );
  }
}
```

```
BootCamp> javac hello.java
BootCamp> java HelloWorld
Hello World!
BootCamp>
```

example compiled languages

http://www.roesler-ac.de/wolfram/hello.htm

interactive

```
BootCamp> python
>>> print "Hello World!"
Hello World!
>>>
```

scripted

file: hello.py

```
print "Hello World!"
```

```
BootCamp> python hello.py
Hello World!
BootCamp>
```

2 points:

1. Python provides both an interactive way to develop code and a way to execute scripts

2. What you do interactively is basically the same thing you (can) do in your scripts