

Quick Python Script Explanation for Programmers

Load other code modules.

Module name. This refers to "os.py"

```
import os
```

The name "main" is just a convention, not a requirement.

```
def main():
```

See the very bottom of this script.

```
    print 'Hello world!'
```

Newline automatically added to print statements. Also, there are no semicolons at the end of the line.

```
    print "This is Alice's greeting."
```

```
    print 'This is Bob\'s greeting.'
```

I prefer single-quotes, but either is fine. Either way, you don't have to escape the other kind of quote inside the string.

```
    foo(5, 10)
```

Function call.

```
    print '=' * 10
```

String replication. Evaluates to '=========='

```
    print 'Current working directory is ' + os.getcwd()
```

String concatenation.

Call a function in the os module.

```
    counter = 0
```

```
    counter += 1
```

Variables MUST be instantiated first.

```
    food = ['apples', 'oranges', 'cats']
```

Lists can contain different data types in the same list, including other lists.

```
    for i in food:
```

For loop. "i" takes on each value in the list "food" in order.

```
        print 'I like to eat ' + i
```

One-line block. When the indentation goes back down, the block has ended.

```
    print 'Count to ten:'
```

```
    for i in range(10):
```

```
        print i
```

The range() function returns a list like [0, 1, 2, 3, 4, 5, 6, 7, 8, 9] Don't forget the colon at the end!

Function definition. Don't forget the colon at the end.

```
def foo(param1, secondParam):
```

```
    res = param1 + secondParam
```

String interpolation works basically the same way as it does in C.

```
    print '%s plus %s is equal to %s' % (param1, secondParam, res)
```

```
    if res < 50:
```

The comparison operators are the same as C.

```
        print 'foo'
```

```
    elif (res >= 50) and ((param1 == 42) or (secondParam == 24)):
```

```
        print 'bar'
```

```
    else:
```

```
        print 'moo'
```

Boolean operators are words, not && and ||.

```
    return res # This is a one-line comment.
```

Comments.

```
    '''A multi-line string, but can also be a multi-line comment.'''
```

Colons come after def, for, while, if, elif, and else statements.

Multi-line strings don't affect block indentation, though, only the indentation at the START of the statement or expression.

```
if __name__ == '__main__':
```

```
    main()
```

We put a call to main() at the bottom so that each def statement is executed by the time we call main(). This script's __name__ variable has the value '__main__' only when the script is run, not imported. With this check, the main() function won't run if another script imports this script.