Command Line Interface

If you have used command line, you can skip this section…

What is Command Line Interface (CLI)?

It "is a means of interacting with a computer program where the user (or client) issues commands to the program in the form of successive lines of text (command lines)."[1]

How to use CLI?

You can use command line via the following, depending on your systems:

- **Windows:** Powershell
- **Linux:** Terminal
- **MacOSX:** Terminal/iTerm

101 dip into CLI

Know where you are

Type the following in the terminal:

```
$ pwd
```

That prints the current directory you are at called **p**rint **w**orking **d**irectory.

You can find out what is contained in the directory you are in:

```
$ ls
```

You can change directory by typing the following:

```
$ cd a_directory
```

That should be enough for this workshop, if you want to learn more about CLI, Coding Grace has slides from a previous **Beginners CLI workshop**[2]

If you want us to run a CLI Workshop, drop us an email

✉ contact@codinggrace.com

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[1] http://en.wikipedia.org/wiki/Command_line

[2] http://bit.ly/1mVUjzG

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Introduction to Python

Open terminal and type "**python**" and you should see the following:

```
$ python
Python 2.7.7 (default, Jun 14 2014, 23:12:13)
[GCC 4.2.1 Compatible Apple LLVM 5.1 (clang-503.0.40)] on
darwin
Type "help", "copyright", "credits" or "license" for more information.
>>>
```

"**>>>**" means your are in the Python interpreter. You can type Python code and try commands out.

Now let's write some Python

```
>>> print("Hello")
Hello
```

Let's try some interaction:

```
>>> raw_input("What's your name? > ")
What's your name? >
```

It is waiting for your input. So type in your name, and hit **RETURN**:

```
>>> raw_input("What's your name? > ")
What's your name? > Vicky
Vicky
```

Let's exit the command interpreter

To do this, type **`exit()`** or click **Ctrl-D** (i.e. EOF) to exit the interpreter.

It should bring you back to **$** prompt.

Writing Python scripts

Before we start, a couple of best coding practices

Things to note before writing Python code, best coding practices:

- Make sure you have set editor to **4 *spaces***[3] as indentation is important in Python.
- Use *spaces* instead of *tabs*[4].

You can find out more about the style guidelines for Python here:
http://legacy.python.org/dev/peps/pep-0008/

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[3] http://legacy.python.org/dev/peps/pep-0008/#indentation

[4] http://legacy.python.org/dev/peps/pep-0008/#tabs-or-spaces

Your first Python script

In your editor, create a new Python script, and save it as **my_game.py**.

```
if __name__ == "__main__":
    main()
```

This allows the script to be run as a reusable modules, or as standalone programs.

To understand this more, let's add more code. Above the code just written, add the following:

```
def main():
    print(raw_input("What's your name? > "))
```

This is what the full code should look like:

```
def main():
    print(raw_input("What's your name? > "))

if __name__ == "__main__":
    main()
```

Now remember to save the file. And let's go back to the terminal, make sure you are in the same location as your Python script by using **pwd**, **cd** and **ls**.

To run the script, you can type the following in the terminal:

```
$ python my_game.py
What's your name? > Vicky
Vicky
```

You can also run this code in the Python interpreter

```
$ python
>>> import my_game
>>> my_game.main()
What's your name? > Vicky
Vicky
>>>
```

Now we have the initial basics, let's continue with the rest of the workshop.

Workshop files

You can find the workshop files here: **http://bit.ly/Ufm1vC**

Questions?

✉ contact@codinggrace.com

Resources

Recommended Editors

- Sublime Text Editor (All Platforms) - `http://www.sublimetext.com`
- PyCharm Editor (All Platforms) - `http://www.jetbrains.com/pycharm/`

References

- Python official website - `http://python.org`

Tutorials

- Learn Python the Hard Way - `http://learnpythonthehardway.org/book/`
- Dive into Python - `http://www.diveintopython.net`
- How to think like a Computer Scientist - `http://www.greenteapress.com/thinkpython/`