CodeHub

Code for all!

In colaboration with:

C.S. Society | Y.E.S | PyCademy

Python!

```
>>> print 'Welcome to CodeHub!'
Welcome to CodeHub!
>>>
```

Variables

```
>>> tempvariable = 'variables contain data'
>>> any_name = 'they may be named anything'
>>> data = 'It's best to name them appropriately!'
```

Data types

```
>>> a_string = 'Is a "list" of characters!'
>>> an_int = 14
>>> a_float = 3.14
>>>
```

Data structures

There are four dominant types:

- Lists
- Dictionaries
- Sets
- Tuples

Lists are great!

```
>>> super_list = ['store','stuff','in','me',':D']
>>> they_are_ordered = super_list[4]
>>> print they_are_ordered
:D
>>>
```

Dictionaries are fast!

```
>>> keys_and_values = {'this is a dict':"and a value"}
>>> print keys_and_values['this is a dict']
and a value
>>>
```

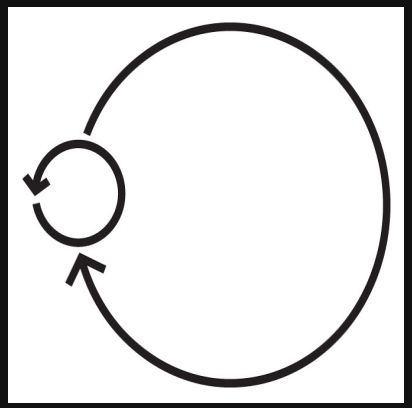
Sets and Tuples are faster!

```
>>> settled = set({1,2,3,4})
>>> tupled = (1,2,3,4)
>>> print type(settled), type(tupled)
<type 'set'> <type 'tuple'>
>>>
```

Conditionals
if-elif-else

```
>>> it_is = True
>>> if it_is:
...     print "It's true!"
... elif not_sure:
...     print 'Tak sure, bro!'
... else:
...     'Nooooooooooo'
...
It's true!
>>>
```

Loops
For and While



For

```
>>> for index in a_list:
...     print index
...
this
is
a
data
structure
>>>
```

While

```
>>> while True:
...     print 'continue doing something!'
...
continue doing something!
continue doing something!
continue doing something!
continue doing something!
continue doing something!
continue doing something!
continue doing something!
```

I/O

```
>>> f = open('/Users/aaronmyatt/afile.txt', 'rw')
>>> f.read()
'Some interesting text.'
>>> f.close()
>>>
```

A neat trick

```
>>> with open('/Users/aaronmyatt/afile.txt', 'rw') as f:
...     f.read()
...
'Some interesting text.'
>>>
```

Methods

```
>>> def a_method():
...     return 'to do things for you'
...
>>> print a_method()
to do things for you
>>>
```

Modules

```
>>> import math
>>> import cherrypy
>>> import matplotlib
>>> type(math)
<type 'module'>
>>>
```

Learning more

```
>>> a = 'help meeee'
>>> help(a)
no Python documentation found for 'help meeee'

>>>
```

Interactive help

```
>>> help(math)

Help on module math:

NAME
    math

FILE
    //anaconda/lib/python2.7/lib-dynload/math.so

MODULE DOCS
    http://docs.python.org/library/math

DESCRIPTION
    This module is always available.  It provides
```

Web help

- Python.org
- pythontutor.com
- Think Python
- help()
- Udacity.com

Each week we will expand on these topics

Follow along at:

github.com/aaron-pycademy/CodeHub

Stay in touch and keep coding!

With major thanks to:

Pycademy