1 Control flow

Program execution proceeds from top to bottom, unless you change the flow of execution. Today, you will go over if/elif/else. We will go over if statements.

Let's start out with setting the variables.

```python
this = True
that = False
```

A if statement if, a :, and some argument inbetween. The argument will be True if is anything but a 0. If it is a zero, the statement is false.

If the if statement is True, the tabbed lines beneath will be run, in it is false, the tabbed lines will be skipped till there a none tabbed line is reached. Let's see what happens when we input these into a if statement.

```python
if this:
    print 'this'
if that:
    print 'that'
```

The output for the lines will be, this, because the if statement before it was True while, that, will not print because the if statement before it is false.

This next set of lines will be using and and or. These can be read like in a regular sentence and will only work if both arguments are True, while or will work if either are True.

```python
if this and that:
    print 'this and that'
if this and this:
    print 'this and this'

if this or that:
    print 'this or that'
if that or that:
    print 'that or that'
```

The output for the lines will be, this and this and this and that.

Another key word that can be used is not. It will flip a statement. Making True, False, and False, True.

```python
if not(this):
    print 'this'
if not(that):
    print 'that'
```
The output for the lines will be, that

Now we are going to add `elif` and `else`. `else` is a statement that attaches to the end of `if`. It only iterates if the `if` above is False. `elif` is also a statement that can go after an `if`. It can act like a `if` statement if the above statement is False

```python
if that:
    print 'that
elif that:
    print 'that that'
else:
    print 'that that this'
```

The output for the lines will be, that that this

Lastly we will give you a few ideas on was to make make functions really cool.

```python
if this:
    if that:
        print 'this, that'
    else:
        print 'this, this'

if that:
    print 'that'
elif that:
    print 'that that'
eif that:
    print 'that that that'
eif that:
    print 'that that that that'
eif that:
    print 'that that that that this'
else:
    print 'that that that that this'
```