



# Control Flow

Instead of operators like in Java ( && || )  
you just use the words (and, or, not)

Everything is technically public, but convention says that private has two underscores,  
protected is implied with a single underscore

## Functions

### Define the function

```
def function_name(myVariable, myOtherVariable = 10):
```

### call the function

```
function_name(myVariable)
```

### Multiple Returns

You can return multiple things

```
return myInt1 myInt2 myInt3
```

```
a, b, c = myIntFunction()
```

### If/elif/else statements

"if" followed by a statement followed by a ":"

```
if {statement} :
```

```
result
```

### Range

range(10) = Creates an **object** that contains the values 0 to 10

We can make this into a list by using list(range(10))

range(0,5) Creates an object that contains the values 5 to 10

range(0,100,10) Creates an object that contains 0,10,20,30,40,...,100

## For Loops

```
for myObject in myList:  
    print(myObject)
```

Or

```
for i in range(6):  
    print(i)
```

Or

```
for i in range(len(myList))
```

## While Loops

```
while myVariable <=3:  
    count += 1
```

Or

```
length = len(myList)  
index = 0  
while index < length:
```

## Try/Except

```
Variable_to_check = "myVariable"  
try:  
    print(myDict[Variable_to_check])  
except:  
    print("That key doesn't exist!")
```

## Operators

a \* b c = (1, 2, 3, 4, 5)

would give b a value of (2,3,4)

# Scope

## Keyword: nonlocal

`nonlocal myVariable ...` accesses a variable from the enclosing scope, rather than creating a new variable in the local scope

## Keyword: global

`global myVariable ...` allows you to modify a global variable, (rather than just access it)

# Lambda

```
def add_two(my_input):  
    return my_input + 2
```

can also be written in lambda format

```
add_two = lambda my_input: my_input + 2
```

```
print(add_two(3))  
print(add_two(100))  
print(add_two(-2))
```