

### Example

```
a = 2
b = 8
if (a < b):
    print( "a < b")
>>> a < b
```

We must define scope before the `print`. In fact python relies on indentation (whitespace at the beginning of a line) to define scope in the code.

### Elif

```
if (a > b):
    print( "a > b")
elif (a < b):
    print( "a < b")
>>> a < b
```

The `elif` keyword is used to say if the previous conditions were not true, then try this condition.

### Else

```
if (a > b):
    print( "a > b")
elif (a < b):
    print( "a < b")
else:
    print( "a is equal to b")
```

The `else` keyword catches anything which isn't caught by the preceding conditions.

### Short Hand If

```
if a < b: print( "a < b")
```

### Short Hand If ... Else

Two conditions:

```
print( "a > b") if a > b else print( "a < b")
```

Three conditions:

```
print( "a > b") if a > b else print( "a is equal to b") if a == b else print( "a < b"
)
>>> a < b
```

### AND

```
if (condition_1 and condition_2):
    print( "Both conditions are correct")
else:
    print( "At least one of the conditions is incorrect")
```

### OR

```
if (condition_1 or condition_2):
    print( "At least one of the conditions is correct")
else:
    print( "Both conditions are incorrect")
```

### Nested If

```
if (a > 0):
    if (a > b):
        print( "a > 0 and a > b")
    elif (a < b):
        print( "a > 0 and a < b")
else:
    print( "a < 0")
>>> a > 0 and a < b
```

### The pass Statement

```
if (a < b):
    pass
```

`if` statements cannot be empty, but if we for some reason have an `if` statement with no content, we can put in the `pass` statement to avoid getting an error.

