#CodeYork

Assignment 1B

Summer 2017

Task 1 - If Statements

Now that we've got a handle on boolean expressions, we can start writing code that can make decisions. Paste the following into IDLE:

```
x = 10
if x < 5:
    print("x is greater than 5")
else:
    print("x is less than or equal to 5")
```

Does this do what you expect? Now fix condition in the if statement so it really does print the correct information.

Task 2 - List Access

Recall the list from the slides. We will first assign it to a variable:

```
ls = [1, 2, 'hello', 3.4]
```

Now type the following into the interpreter:

```
ls[0]      ls[1]      ls[2]      ls[3]      ls[4]
```

Do they do what you expect. In particular, what does the last one do?

Task 3 - Length of List

Just like with strings, we can get the length of a list with the len function:

```
len([])          len([1, 2, 3])          len(ls)
```

for some list, ls.

Task 4 - Splicing a List

We now look at how we can splice a list. If we have a list:

```
ls = [2, 4, 6, 8, 10]
```

we can take the middle part of this list using either:

```
ls[1:4]          ls[1:-1]
```

Make sure you understand why that works, and why the first case is problematic if ls had more elements. Finally, we can actually reverse a list easily using:

```
ls[::-1]
```

Task 5 - All Together Now

You shall now write your own code that will take a list and tell us if it has has more than 3 elements, and if it does, print the 3rd element only if it is larger than 5; otherwise, print the 2nd element instead. You will need to use the len function, the print function, if statement(s), list access, and comparison operators.