

CONDITIONALS AND LOOPS

DAY THREE

PROJECT INCLUDE ALBION BOOTCAMP

REVIEW

Variable data types: Strings, integers, floats

Lists: A list is a group of items. Each item in the list has an **index**.

Functions: A function is a block of code that takes in inputs (parameters) and outputs something (return or print).

BOOLEANS

Another data type.

Either TRUE or FALSE.

```
1 + 1 == 2 -> True
```

```
1 + 1 != 2 -> False
```

```
5 > 5 -> False
```

```
5 >= 5 -> True
```

IF, ELIF, ELSE

If a condition is set to be **True**, then do the following in its block, else if (elif) another condition is set to be **True**, then do the following in its block. Else block is run if all conditions earlier are **False**.

Syntax in Python:

```
if(condition):  
    ...  
elif(condition):  
    ...  
else:  
    ...
```

ADVENTURE GAMES

Create your own adventure game using if, elif, and else, with input and print statements.



BREAK TIME

FOR LOOPS

A for loop is a loop that breaks once an end is reached within its syntax. For example, a list for loop ends its loop once the last item is reached.

For Loop Syntax in Python looping items in a list:

```
for each in list:
```

```
...
```

For Loop Syntax in Python looping items in a range:

```
for each in range(0, 5):
```

```
...
```

WHILE LOOPS

A while loop is a loop that breaks once a condition turns True. In order for that to happen, the condition needs to change while in the loop block.

While Loop Syntax in Python:

```
while(condition):
```

```
...
```


FOR/WHILE LOOP ACTIVITIES

Which one uses a for loop and which one uses a while loop? Why?

- Find the biggest number in a list
- Quit a constant loop until “q” is typed

Create these loops!

SORTING GAME: BUBBLE SORT

We need 6 brave volunteers!

BUBBLE SORT

Bubble sort is a sorting technique.

6 5 3 1 8 7 2 4

BUBBLE SORT ACTIVITY

Time to build a Bubble Sort! This is a hard activity, props to anyone who gets it!

Hint:

Loop through the whole list, and in that loop, loop through the ones that are not in the last x items in the list that are already in place.

6 5 3 1 8 7 2 4

DAY THREE COMPLETE
SEE YOU TOMORROW!