**Day 68 - 90 days of Analytics: For & While Loops**

In today's video, we looked at loops in python

The following were mentioned

-Python has two primitive loop commands: **while** loops and **for** loops

-A **for** loop is used for iterating over a sequence (that is either a list, a tuple, a dictionary, a set, or a string).

-With the for loop we can execute a set of statements, once for each item in a list, tuple, set etc. Example

```
fruits = ["apple", "banana", "cherry"]
for x in fruits:
  print(x)
```

-The **range()** function is used to loop through a set of code a specified number of times

-The **range()** function returns a sequence of numbers, starting from 0 by default, and increments by 1 (by default), and ends at a specified number. Example

```
for index in range(6):
  print(index)
```
-Note that range(6) is not the values of 0 to 6, but the values 0 to 5.

-The **range()** function defaults to 0 as a starting value, however it is possible to specify the starting value by adding a parameter: range(2, 6), which means values from 2 to 6 (but not including 6):

-The **len()** function returns the number of items in an object. When the object is a string, the **len()** function returns the number of characters in the string.

-With the **while** loop we can execute a set of statements as long as a condition is true. Example

```
i = 1
while i < 6:
  print(i)
  i += 1
```

-Note: remember to increment i, or else the loop will continue forever.

-The **while** loop requires relevant variables to be ready, in this example we need to define an indexing variable, i, which we set to 1.

Link to the YouTube Recording: https://www.youtube.com/watch?v=fawZCCPZwps

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