

## Day 63 - 90 days of Analytics : Python Lists

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

The following were mentioned

- Lists are used to store multiple items in a single variable.
- Lists are one of 4 built-in data types in Python used to store collections of data, the other 3 are Tuple, Set, and Dictionary, all with different qualities and usage.
- Lists are created using square brackets or the list() function.
  - Empty\_list = []
  - Empty\_list = list()
  - Initialising a list: thislist = ["apple", "banana", "cherry"]
- A list can contain elements of different data types and can even include another list
- List items are ordered, changeable, and allow duplicate values.
- List items are indexed, the first item has index [0], the second item has index [1] ...
- Lists are ordered in the sense that the items have a defined order, and that order will not change.
- Just like strings, we can slice lists.
- If you add new items to a list, the new items will be placed at the end of the list.
- Lists are mutable meaning elements of a list can be replaced provided their indices are known. Example thislist[0] = "tomato"
- Some list methods include
  - **append()** - Adds an element at the end of the list
  - **pop()** - Removes the element at the specified position
  - **insert()** - Adds an element at the specified position
  - **reverse()** - Reverses the order of the list
  - **sort()** - Sorts the list
- You cannot copy a list simply by typing list2 = list1, because: list2 will only be a reference to list1, and changes made in list1 will automatically also be made in list2. There are ways to make a copy
  - one way is to use the built-in List method copy(). Example mylist = thislist.copy()
  - Another way to make a copy is to use the built-in method list(). Example mylist = list(thislist)

Link to the YouTube Recording: <https://www.youtube.com/watch?v=k6aWWb9Ryto>

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