**Mutation, Aliasing, Cloning**

Lists are mutable, an object in memory and there is a variable pointing to it

Different variable names for the same object in memory, when we change anything in the original, it affects any reference to this list

**Aliasing**

warm = [“red”, “yellow”, “orange”]

hot = warm

hot.append(“pink”)

hot = [“red”, “yellow”, “orange”, “pink”]

warm = [“red”, “yellow”, “orange”, “pink”]

cool = [“blue”, “green”, “gray”]

chill = [“blue, “green”, “gray”]

cool and chill point to different objects in memory. If we test equality, they will not be the same.

**Cloning a list**

Create a new list and copy every element in it. L[:]

Lists can be nested, list of list, we can access elements by accessing the outermost element first.