

Lists with other Data Structures

List of lists

- E.g. a list of device types, `all_devices[0]` might be for IOS devices
- Each item in this list is itself a list of actual IP addresses for devices of that particular device type.



```
all_devices [ 0 [ 10.3.21.5 10.3.21.6 10.3.21.7 ]  
            1 [ 10.4.30.2 10.3.21.58 ]  
            2 [ 10.5.2.1 10.5.2.6 10.5.2.7 ] ]
```

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Lists of numbers or strings are interesting, but things get much more useful and practical when they get combined with other data structures.

```
all_devices [ 0 [ 10.3.21.5 10.3.21.6 10.3.21.7 ]  
            1 [ 10.4.30.2 10.3.21.58 ]  
            2 [ 10.5.2.1 10.5.2.6 10.5.2.7 ] ]
```

List of Lists

Consider a simple list of lists. In the example is a list that is called 'all_devices', which has been created with the specific purpose of holding the IP address of devices of each device type. List all_devices[0] represents IOS devices, all_devices[1] represents NX devices, and so on.

The code to create these lists would look similar to:

```
ios_devs = ['10.3.21.5', '10.3.21.6', '10.3.21.7']
nx_devs = ['10.4.30.2', '10.3.21.58']
xr_devs = ['10.5.2.1', '10.5.2.6', '10.5.2.7']
all_devices = [ios_devs, nx_devs, xr_devs]
```

And as a result, the data for all_devices would look like:

```
[ ['10.3.21.5', '10.3.21.6', '10.3.21.7'],
  ['10.4.30.2', '10.3.21.58'],
  ['10.5.2.1', '10.5.2.6', '10.5.2.7']]
```

Simple, but powerful as a means of storing handy networking information.