

## 8.1: A LIST IS A SEQUENCE



Contributed by [Chuck Severance](#)  
Clinical Associate Professor (School of Information) at [University of Michigan](#)

Like a string, a *list* is a sequence of values. In a string, the values are characters; in a list, they can be any type. The values in list are called *elements* or sometimes *items*.

There are several ways to create a new list; the simplest is to enclose the elements in square brackets ( `[` and `]` ):

```
[10, 20, 30, 40]
['crunchy frog', 'ram bladder', 'lark vomit']
```

The first example is a list of four integers. The second is a list of three strings. The elements of a list don't have to be the same type. The following list contains a string, a float, an integer, and (lo!) another list:

```
['spam', 2.0, 5, [10, 20]]
```

A list within another list is *nested*.

A list that contains no elements is called an empty list; you can create one with empty brackets, `[]` .

As you might expect, you can assign list values to variables:

```
>>> cheeses = ['Cheddar', 'Edam', 'Gouda']
>>> numbers = [17, 123]
>>> empty = []
>>> print(cheeses, numbers, empty)
['Cheddar', 'Edam', 'Gouda'] [17, 123] []
```