

KEY_Lesson04_Lists_Intro

December 10, 2019

1 Lists

Lists can be used to group different values together - it's just a collection of things.

You can make a list in Python by putting different things in a box of brackets `[]` separated by commas:

```
[1]: # command Python to make a list and store it in my_list
my_list = ['pizza', 'fries', 3, -2.5, 'donuts']

# command Python to print my_list
print(my_list)
```

```
['pizza', 'fries', 3, -2.5, 'donuts']
```

Now let's make a list of fruit and save it to the variable `fruit`. Have your list include apple, banana, grape, and any other fruit you want!

```
[2]: # command Python to make a list of fruit including apple, banana, and grape
fruit = ['apple', 'banana', 'grape']
# command Python to print the list of fruit
print(fruit)
```

```
['apple', 'banana', 'grape']
```

You can also see how many things there are in your list using `len`:

```
[3]: # command Python to find the length of my_list
len(my_list)
```

```
[3]: 5
```

Let's find the length of `fruit` list:

```
[4]: # command Python to find the length of your fruit list
len(fruit)
```

```
[4]: 3
```

To add lists together, all you have to do is use the `+` operator.

```
[5]: # command python to add my_list and fruit
my_list + fruit
```

```
[5]: ['pizza', 'fries', 3, -2.5, 'donuts', 'apple', 'banana', 'grape']
```

You can also make a list that includes variables:

```
[6]: # assign the value 1 to the variable a
a = 1
# assign the value 2 to the variable b
b = 2
# make a list including values and variables and save it to the variable numbers
numbers = [0, a, b, a+b]
# print the numbers list
print(numbers)
```

```
[0, 1, 2, 3]
```

To add a value to a list, you can use `.append()`:

```
[7]: # append 4 to the list numbers
numbers.append(4)
# print numbers
print(numbers)
```

```
[0, 1, 2, 3, 4]
```

Let's add mango to our fruit list:

```
[8]: # add mango to fruit list
fruit.append('mango')
# print fruit
print(fruit)
```

```
['apple', 'banana', 'grape', 'mango']
```

You just learned how to: * Make a list * Find the length of a list * Add lists together * Add things to a list

Now it's time to practice what you learned!