Welcome back to the

Python Course

List

A list is an ordered sequence of elements. Each element has an index that determines its position.

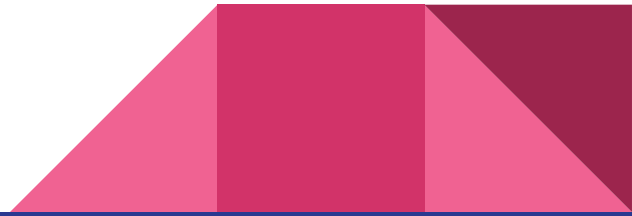
We can consider a string a list of characters.

List

This is an example of list:

numbers = [123 , 654 , 789 , 852]

index : 0 1 2 3



List

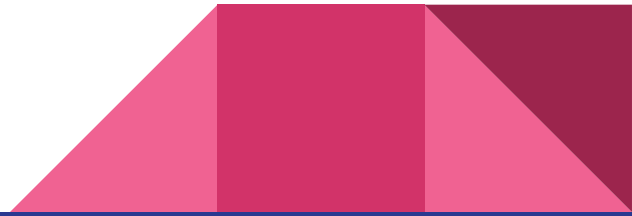
This is an example of list:

numbers = [123 , 654 , 789 , 852]

index : 0 1 2 3

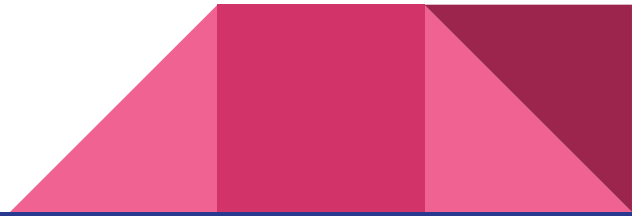
numbers[1 : 3] → [654 , 789]

numbers[2] → 789



List

list_name = [v_0 , v_1 , … , v_n]



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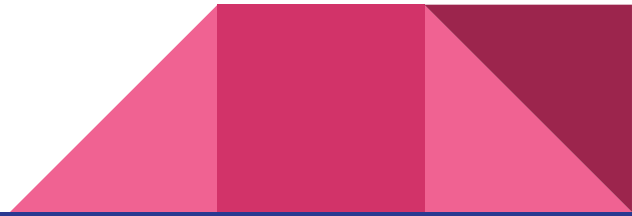


List

```
list_name = list()
list_name.append( v )
```

List

```
list_name = list()
list_name.append( v )
```

List

```
list_name = list()
list_name.remove( v )
```

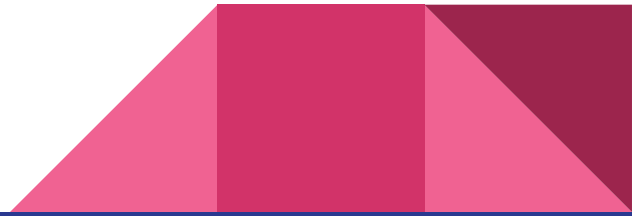
Let’s practice!

List Tools and Properties

You can check weather a element is in the list using *in*.

element in list_name

It returns True or False.



List Tools and Properties

len() works exactly like with strings.

len(list_name) → list length

It returns an integer.

List Tools and Properties

text = “1 2 3”

list_name = text.split(“ ”)

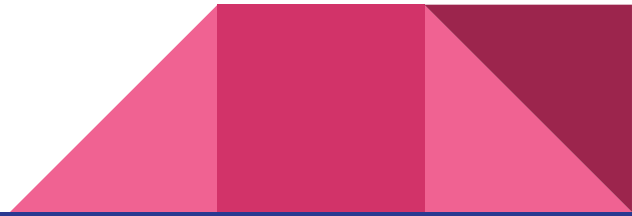
list_name → [‘1’ , ‘2’ , ‘3’]

List Tools and Properties

list_name= [‘1’ , ‘2’ , ‘3’]

text = “ ”.join(list_name)

text → “1 2 3”



Let’s practice!

Sorting

In python, sorting the elements of a list is easy thanks to the *sort()* method

```
list_name.sort()
```

Sorting

list_name = [5 , 7, 3 , 4]

list_name.sort()

list_name → [3, 4, 5, 7]

Sorting

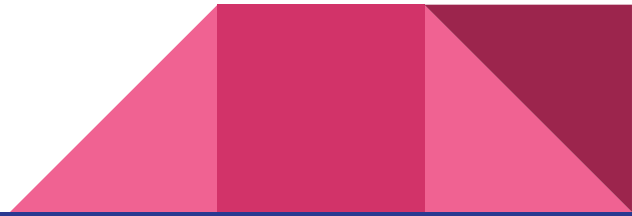
The *sorted()* function returns the sorted list without modifying the original list.

```
sorted( list_name )
```

Sorting

list_name = [5 , 7, 3 , 4]

sorted(list_name) → [3, 4, 5, 7]

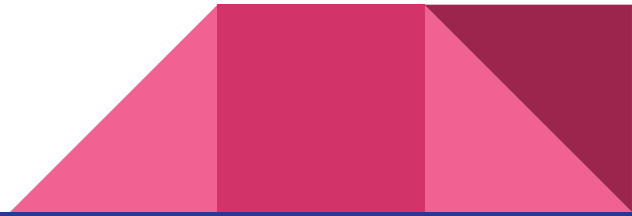


Let’s practice!

Dictionary

A dictionary is an unordered set of key-value pairs.

```
dict_name = { key_1 : v_1 , key_2 : v_2 }
```



Dictionary

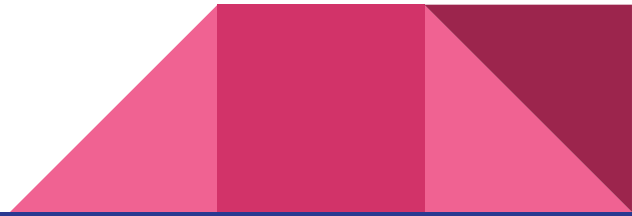
dict_name = { key_1 : v_1 , key_2 : v_2 , … , key_n : v_n }

dict_name = dict()

dict_name[key] = value

dict_name[key] → value

del dict_name[key]



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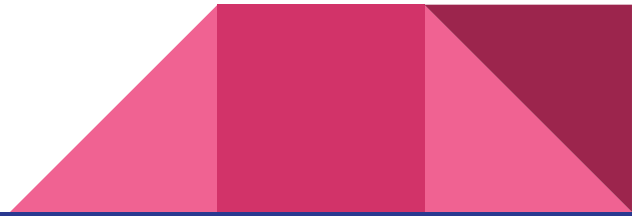

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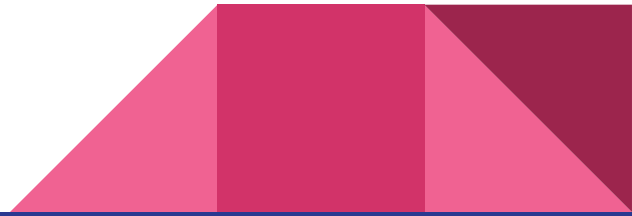

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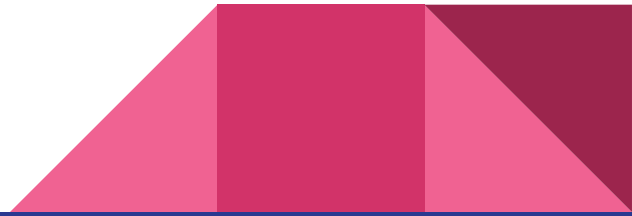

Dictionary

dict_name.keys() → list of keys

dict_name.values() → list of values

Let’s practice!