

Lists

WHAT IS A LIST?

Mutable containers of items accessible by ***index***

```
myList = ['a', 4, 'abc', 2.04]
```

```
myList2 = [2, 10, 1, 5, 1]
```

LIST FUNCTIONS



INSERT

Inserts items into the list *at a set index*

```
myList = ['a', 4, 2.04]  
myList.insert(2, 'ABC')
```

```
['a', 4, 'abc', 2.04]
```



APPEND

Adds item to *end of list*

```
myList = [1, "CS", 100]  
myList.append("!!")
```

```
[1, "CS", 100, "!!"]
```

LIST FUNCTIONS



POP

Removes *last/indexed* item in a list

```
myList = ['a', 4, 'words', 'abc']  
myList.pop()    #last  
myList.pop(0)   #index 0
```

[4, 'words']



REMOVE

Removes *first occurrence* of an item

```
myList = [10, 1, 5, 2, 1]  
myList.remove(1)
```

[10, 5, 2, 1]

LIST FUNCTIONS



SORT

Sorts items into
ascending order

```
myList = [2, 10, 1, 5, 1]  
myList.sort()
```

[1, 1, 2, 5, 10]



REVERSE

Reverses the order of
items in a list

```
myList = [1, 5, 3, 90]  
myList.reverse()
```

[90, 3, 5, 1]

ITERATING THROUGH A LIST

| String | List |
|--|--|
| <pre>for i in range(len(myString)): print(myString[i])</pre> | <pre>for i in range(len(myList)): print(myList[i])</pre> |
| <pre>for ch in myString: print(ch)</pre> | <pre>for item in myList: print(item)</pre> |

FORMING LISTS FROM STRINGS

SPLIT

Forms a list from a string using a *delimiter*

```
myString = 'Hello_CS 100_Scientific_Computing'  
splitList = myString.split('_') →  
['Hello', 'CS 100', 'Scientific', 'Computing']  
Delimiter?
```

```
myString2 = 'Hello CS 100 Scientific_Computing'  
splitList2 = myString2.split()  
Delimiter?
```