Lists

List Slicing

In [1]:
```
myList = [1,2,3,4,5]
myList[3:]
```

Out[1]:
```
[4, 5]
```

In [2]:
```
myList[0:6:2]
```

Out[2]:
```
[1, 3, 5]
```

In [3]:
```
myList[0:6:3]
```

Out[3]:
```
[1, 4]
```

In [4]:
```
myList[::2]
```

Out[4]:
```
[1, 3, 5]
```

In [ ]:
```
for i in range(100):
    print(i)
```

In [7]:
```
myList = list(range(100))
```

In [10]:
```
myList[::10]
```

Out[10]:
```
[0, 10, 20, 30, 40, 50, 60, 70, 80, 90]
```

In [12]:
```
myList[::-10]
```

Out[12]:
```
[99, 89, 79, 69, 59, 49, 39, 29, 19, 9]
```

Modifying Lists

In [13]:
```
myList = [1,2,3,4]
myList.append(5)
print(myList)
```

```
[1, 2, 3, 4, 5]
```

In [14]:
```
myList.insert(3, 'a new value')
print(myList)
```

```
[1, 2, 3, 'a new value', 4, 5]
```

In [17]:
```
myList.remove('a new value')
```

```
---------------------------------------------------------------------------
ValueError                                Traceback (most recent call last)
Input In [17], in <module>
----> 1 myList.remove('a new value')

ValueError: list.remove(x): x not in list
```

In [16]:
```
myList
```

Out[16]:
```
[1, 2, 3, 4, 5]
```

In [18]:
```
myList.pop()
```

Out[18]:
```
5
```

In [19]:
```
myList
```

Out[19]:
```
[1, 2, 3, 4]
```

In [20]:
```
while len(myList):
    print(myList.pop())
```

```
4
3
2
1
```

In [21]:
```
myList
```

Out[21]:
```
[]
```

In [22]:
```
a = [1,2,3,4,5]
b = a
a.append(6)
print(b)
```

```
[1, 2, 3, 4, 5, 6]
```

In [23]:
```
a = [1,2,3,4,5]
b = a.copy()
a.append(6)
print(a)
print(b)
```

```
[1, 2, 3, 4, 5, 6]
[1, 2, 3, 4, 5]
```

In [24]:
```
for i in range(20):
    print(i)
```

```
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
```

In [ ]:
```

```