

One of the basic data structures in Python is the **list**. Each element of a sequence is assigned a number - its position or index.
The first index is zero, the second index is one etc.

```
inv = ["sword", "armour", "shield", "potion"]
list2 = [1, 2, 3, 4, 5 ]
list3 = ["a", "b", "c", "d"]
```

There are many things you can do with LISTS.

... indexing, slicing, adding, multiplying, and checking for membership.

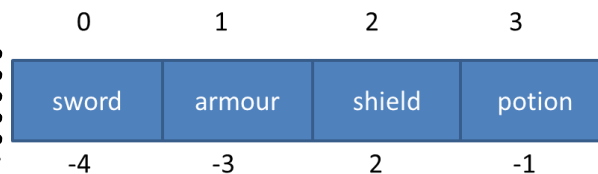
Python has built-in functions for finding the length of a sequence and for finding its largest and smallest elements.

The list is the most versatile datatype available in Python which can be written as a list of comma-separated values (items) between square brackets.

An interesting feature about a list is that items in a list need not be all the same type!

Creating a list is as simple as putting different comma-separated values between square brackets. See example above.

This diagram show the list with index numbers



```
print("Inventory slot[0] is ", inv[0])
print("list2 slots[1:5]: ", list2[1:5])
```

Gives

```
Inventory slot[0] is sword
list2[1:5]: [2, 3, 4, 5]
```

```
print("Value available in slot 2 : ")
print(inv[2])
inv[2] = backpack
print("New item available in slot 2 : ")
```

Gives

```
Value available in slot 2 :
shield
New item available in 2 :
backpack
```

```
print(list3)
del(list3[2])
print("After deleting value at index 2 : ")
print(list3)
```

Gives

```
['a', 'b', 'c', 'd']
After deleting value at index 2 :
['a', 'b', 'd']
```

A good way of presenting your list is using the

```
for item in x:
print("You are carrying...")
for item in inv:
print(inv)
```

Gives

```
You are carrying...
sword
armour
shield
potion
```