

Elements of an Array

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If we declare an array with eight values (or “elements”) as follows:

```
StudentsAges = [9, 10, 9, 8, 10, 10, 9, 11]
```

Then we have a collection of integer variables, and if we want to talk about a particular value in the list, we address them by number, starting at zero (0). So the first element of the array is: `StudentsAges[0]` and if we say the following:

```
print (StudentsAges [0])
```

We will see the following written on the screen:

```
9
```

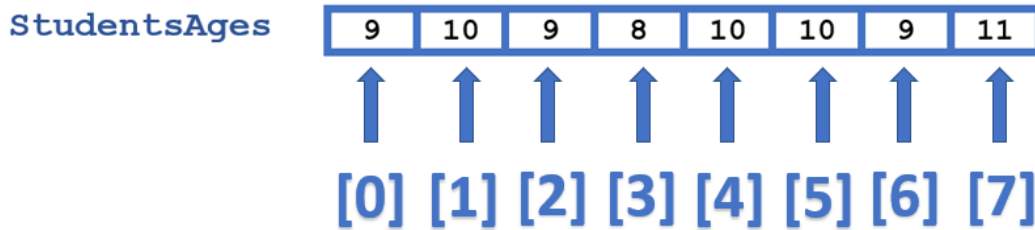
and if want to print out the second element in the array, we say the following:

```
print (StudentsAges [1])
```

We will see the following written on the screen:

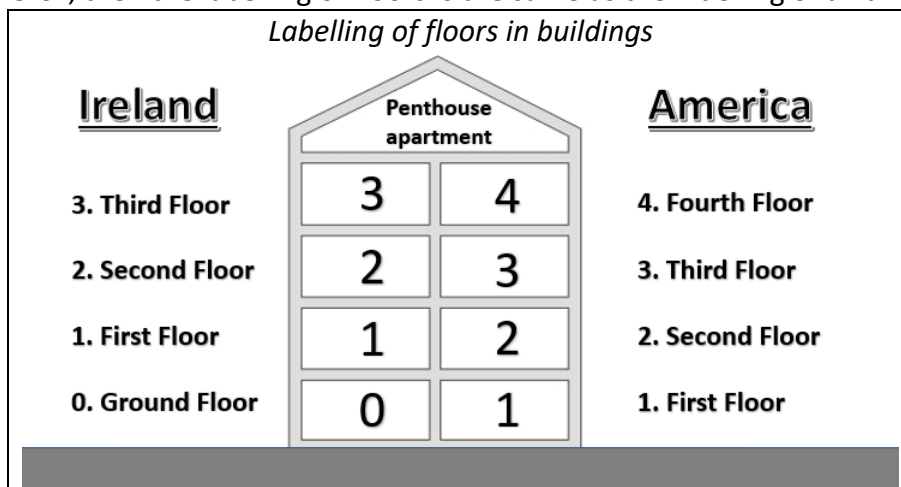
```
10
```

And so on, if we want to picture this array with its address (or “index”) values:



The Hotel Analogy

I like to think of the elements of an array this way, in Ireland when you go to a hotel, the floor you first enter is the bottom floor, and it’s called the “Ground Floor”. The next floor up is called the “First Floor”, and so on. If we think of the Ground Floor, as “Floor Zero”, then the labelling of floors is the same as the indexing of an array:



The key point being, in Python we start an array at value zero (0).