

Covered in this lesson:

- Enumerate
- Zip
- In
- Min/Max

Enumerate:

```
In [5]: 1 index_count = 0
        2
        3 for letter in 'Star':
        4     print('at index {} the letter is {}'.format(index_count,letter))
        5     index_count += 1
```

```
at index 0 the letter is S
at index 1 the letter is t
at index 2 the letter is a
at index 3 the letter is r
```

```
In [2]: 1 name = 'Star'
        2
        3 for index,letter in enumerate(name):
        4     print(index)
        5     print(letter)
        6     print('\n')
```

```
0
S
```

```
1
t
```

```
2
a
```

```
3
r
```

PYTHON HAS BUILT IN SHORTCUT FOR ENUMERATING

```
In [6]: 1 name = 'Star'
        2
        3 for item in enumerate(name):
        4     print(item)
```

```
(0, 'S')
(1, 't')
(2, 'a')
(3, 'r')
```

Zip is a built-in short cut command in Python for combining lists
- lists need to match in size, or Python omits unmatched variables

```
In [1]: 1 list1 = [1,2,3]
        2 list2 = ['a','b','c']
        3 list3 = [25,50,75]
```

```
In [2]: 1 for item in zip(list1,list2,list3):
        2     print(item)
```

```
(1, 'a', 25)
(2, 'b', 50)
(3, 'c', 75)
```

```
In [3]: 1 list(zip(list1,list2,list3))
```

```
Out[3]: [(1, 'a', 25), (2, 'b', 50), (3, 'c', 75)]
```

In keyword (checks if a variable is in a list or dictionary)

"IN" KEYWORD (checks if a variable is in list or dictionary)

```
In [14]: 1 list = (1,2,3,4,5)
```

```
In [15]: 1 1 in list
```

```
Out[15]: True
```

```
In [16]: 1 'a' in 'star'
```

```
Out[16]: True
```

```
In [18]: 1 'star' in {'star':345}
```

```
Out[18]: True
```

```
In [19]: 1 s = {'star':37}
          2
          3 37 in s.values()
```

```
Out[19]: True
```

Min/Max check list for minimum or maximum value in list or dictionary

MIN/MAX KEYWORD SHORTCUTS check for minimum or maximum value in list or dictionary

```
In [20]: 1 list = [25,50,75,100]
```

```
In [22]: 1 min(list)
```

```
Out[22]: 25
```

```
In [23]: 1 max(list)
```

```
Out[23]: 100
```

