

Welcome all

Bklearn. \_\_\_\_\_

MAE vs mse  
⇓      ⇓

pow(2,3)  
Sqrt()  
⇓  
Intuition

### Agenda for Today

1. For with else
2. Nested loop.
3. Questions on Python / Assignment
4. List

## For loop with else statement

While loop runs  
on a condition  
& stops when  
cond<sup>n</sup> fails

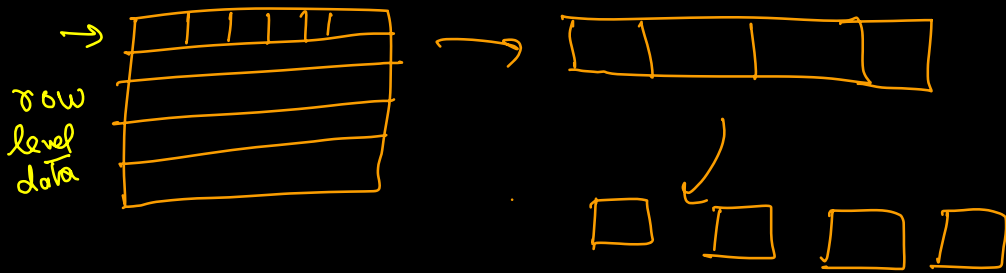
vs

For loop in python  
whereas loops on  
a seq.(list, range, str)  
& stops when it has  
ran over all  
elements of sequence or  
no. of times = len of seq.

## Nested loop

Loop inside a loop

[ , , , ]



[ abc@gmail.com , def@ — , gh@ — ]

1<sup>st</sup> loop      abc@gmail.com

2<sup>nd</sup> loop      a b c @ g m a i l . c o m

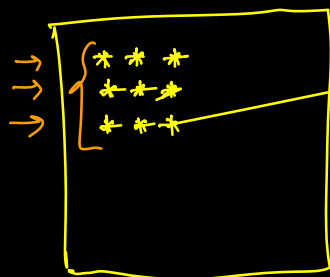
Syntax

```
for <var> in some seq.  
— for <var2> in some — seq:  
    _____  
    _____  
    _____  
    _____  
    _____  
    _____
```

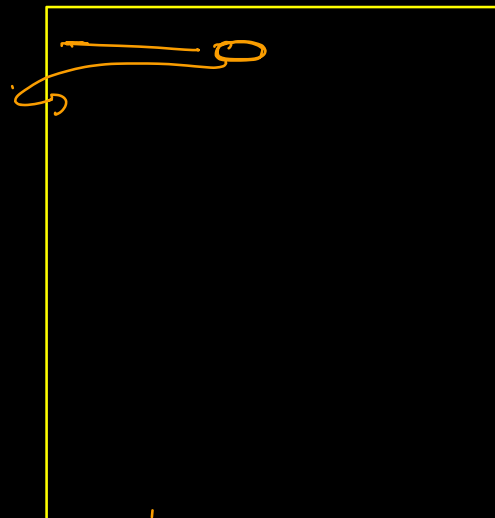
```
i = 0
j = 0
while i < 3:
    j = 0
    while j < 3:
        print("i is " + str(i), end = " ")
        print("j is " + str(j))
        j = j + 1
    i = i + 1
```

Handwritten red annotations: A large oval encircles the nested while loops. Arrows indicate the flow of execution from the outer loop into the inner loop and back out. A small circle is drawn next to the final output.

i is 0	j is 0
i is 0	j is 1
i is 0	j is 2
i is 1	j is 0
i is 1	j is 1
i is 1	j is 2
i is 2	j is 0
i is 2	j is 1
i is 2	j is 2



outer loop → lines  
inner loop.



we cannot go back to  
the previous line  
so always make sure to  
do pattern questions by line



## Lists in python [seq]

list is a list.

⇒ It is used to store multiple values of same or different data type under a single variable.

⇒ They are defined by [ ]

[1, 2, 3, 4] ⇒ list

[1, 'mayank', True, 3+5j, 1.5] ⇒ list

### List Items:

List items are ordered  
changeable  
& allow duplicates.

List it is a seq ⇒ it supports indexing & slicing

l = [1, 2, 3, 4]      l[0] = 1  
                          l[2] = 3

list objects are iterable

[1, 2, 3, 4]



iterate on them