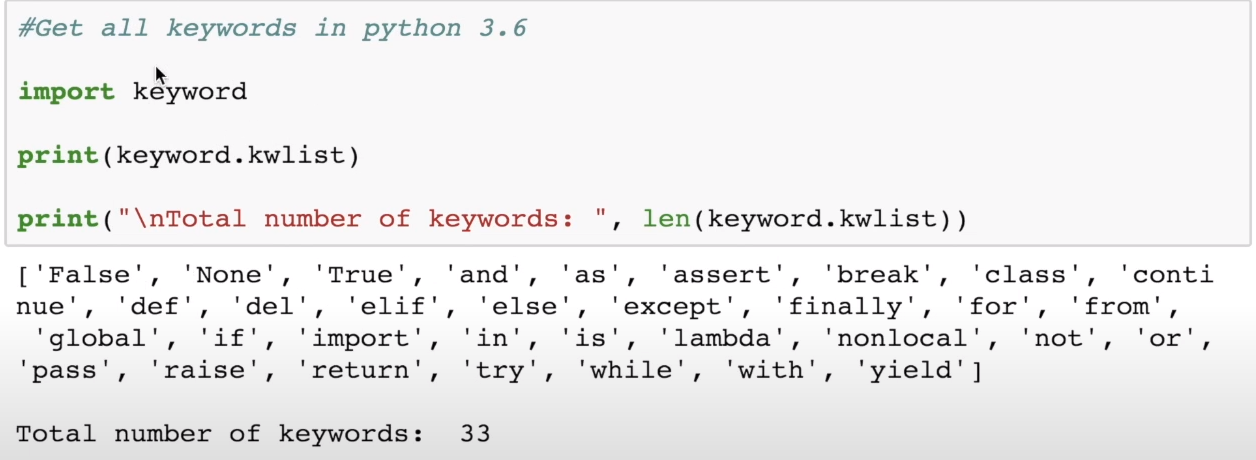
Keyword :

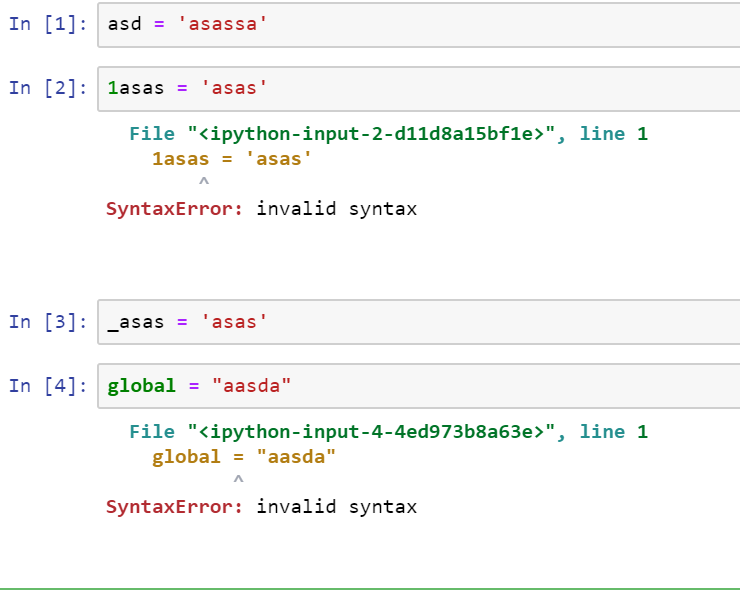
* Reserved Words
* Can’t be used as variable,function and identifier
* Case sensitive

Code snippet to view all keywords :



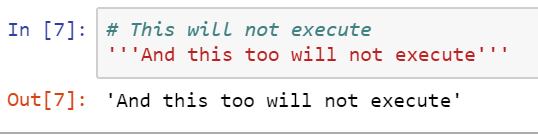
Identifier :

* Combination of alphabet, numbers and Underscore (\_) .
* Cannot start with number. eg 1abc,2var etc
* But we can start with alphabet and underscore. Eg abc1, var2, \_var.
* Keyword cannot be an identifier.



Comments :

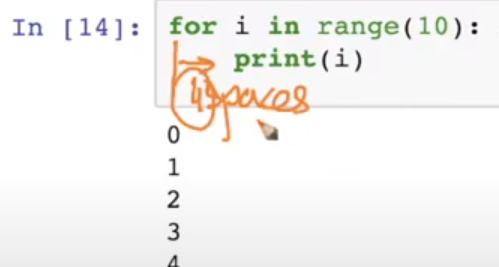
* Single Comment(#) and Multi Line comment(‘’’- Triple (Single or Double Quotes))



Python Indentation :

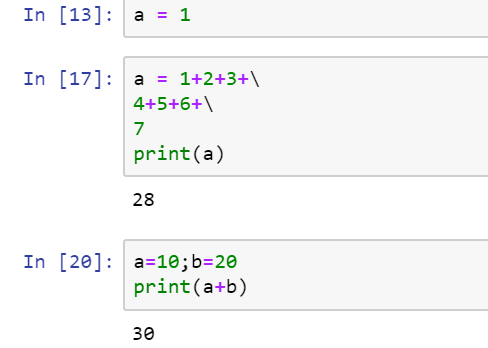
* Code Block
* Similar to braces {} in other lang
* Normally 4 Space indicates a block (Avoid using tab)

In the below code print is under for below which denotes by 4 whitespaces.



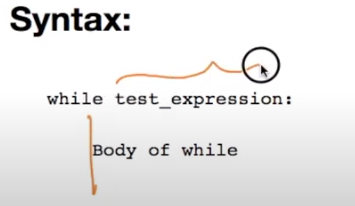
Python Statement :

* Single line statement
* Multiple line statement
* Semicolon used to denote end of line.

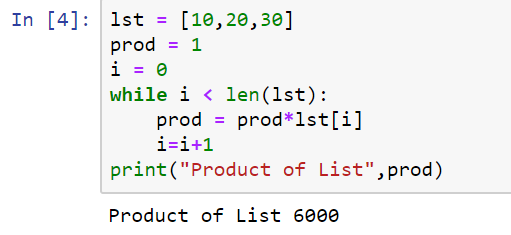


For muliple line statement we denotes by concat \ in end.

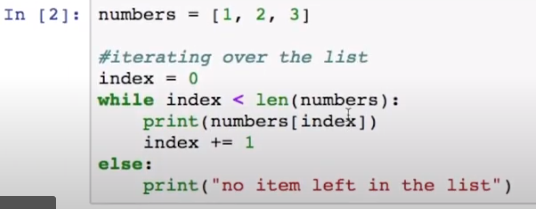
While Loop:



Sample code snippet

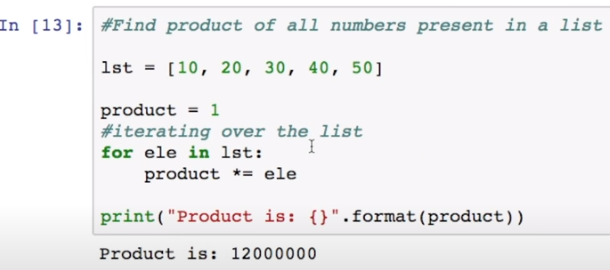


While loop with else :

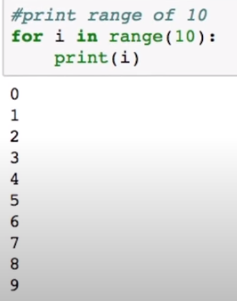


For loop :

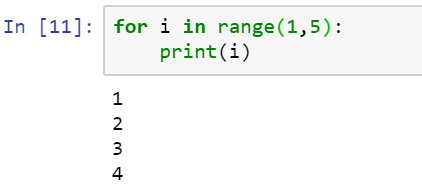
In Sequence :

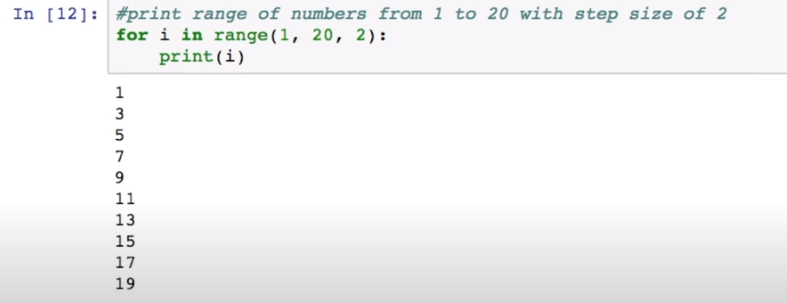


In Range() :

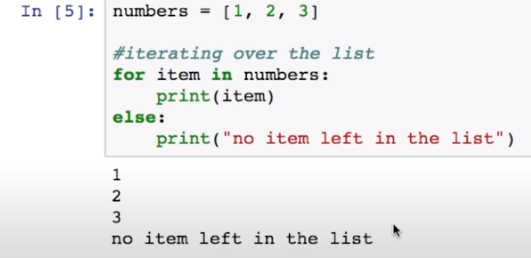


In Range with increment size specific:



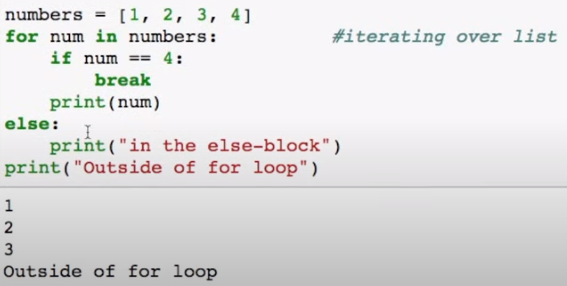


For loop with else :



Break and Continue Keyword :

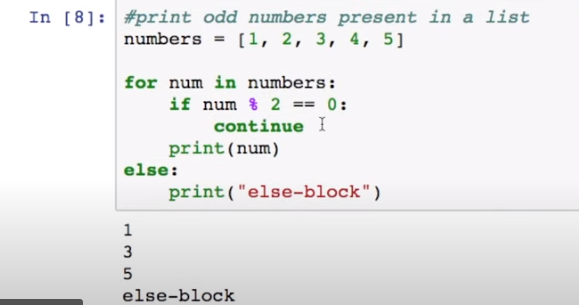
* Break keyword used to come out of loop(for,while) anytime.



* In the above case, if num == 4 then loop will exit (for,else) which includes the else statement.

Conitnue keyword:

* Continue is used to skip the (after keyword continue) below lines of code in loop.
* It continues with next iteration.



**List :**

* Mutable – we can change the elements anytime.
* Indexed, we can traverse through the list using index.
* We can store mixed datatypes.
* Syntax : [x,y,z]

**Notes path :** [**https://github.com/Sridharrr/Python/blob/master/List\_AAIC\_Notes.ipynb**](https://github.com/Sridharrr/Python/blob/master/List_AAIC_Notes.ipynb)

**Tuples :**

* Immutable – we can’t change the elements in tuples.
* Indexed, we can traverse through the list using index.
* We can store mixed datatypes.
* We can’t remove or edit the individual elements in tuple.
* Syntax : (x,y)

**Notes path :** [**https://github.com/Sridharrr/Python/blob/master/Tuples\_AAIC\_Notes.ipynb**](https://github.com/Sridharrr/Python/blob/master/Tuples_AAIC_Notes.ipynb)

**Sets :**

* Mutable – we can change the elements.
* Its stored in memory unordered, so we can’t use index.
* Sorted by default.
* It won’t allow duplicates.
* Sets are Mutable, while frozen sets are Immutable (So used as a Key in dict)
* Syntax : {1,2,3}

**Notes path :** [**https://github.com/Sridharrr/Python/blob/master/Set\_AAIC\_Notes.ipynb**](https://github.com/Sridharrr/Python/blob/master/Set_AAIC_Notes.ipynb)

**Strings:**

* Immutable - we can’t change a individual element in String.
* We can assign different value to the same String.
* We can use index to traverse the String.
* Syntax : ‘xyz’,”xyz”,’’’xyz’’’

**Notes path:** <https://github.com/Sridharrr/Python/blob/master/Strings_AAIC_Notes.ipynb>

**Dictionary:**

* Unordered collection of elements- we can’t index
* Similar to hash table concept in data structure
* It has key: value which is said as pairs
* Mutable – we can change the elements, only when the ‘key’ is known
* Syntax: {‘key’: ’value’}

**Notes path :** [**https://github.com/Sridharrr/Python/blob/master/Dictionary\_AAIC\_Notes.ipynb**](https://github.com/Sridharrr/Python/blob/master/Dictionary_AAIC_Notes.ipynb)

**Exploratory Data Analysis:**

* In order to understand/analyze the given data set, we use simple concepts like statistics, linear algebra, plotting with some python libraries etc
* Exploring the given data set using concepts , in order to meet the expectation
* Data-point: Each of the values in a given data set represents data point
* A single row of data is called instance (eg).,0.1,0.2 gn as input and 0.3 as o/p then the entire row denotes instance
* A collection of instances called data-set, which is entire data given
* In a given table, each of the input columns are denoted by features/ independent variable
* The output columns are denoted by class – label/dependent variable/target variable
* Vector – representation of dimension of data set (ie)., 2D, 3D
* Balanced data set –contains equal or almost equal number of output values obtained by comparison of single column value in class label within the data set

(eg).,

|  |  |
| --- | --- |
| **Feature** | **Class label** |
| 5,6 | pink |
| 4, 8 | blue |
| 3,2 | blue |
| 4,7 | pink |

In the table above, class label has different values like pink, blue which is completely balanced with equal output values (pink=2, blue=2)

* Imbalanced data set – contains unequal number of output values in single column value of class label within the data set (pink=10, blue=100)

**Pair-plots**

* Pair- plots are used when we need to plot the given feature value range greater than 3 (ie)., use of 4D , 5D, 6D
* After 6D we will use other concepts