

```
In [1]: #Python Tutorial
import sys
import keyword
import operator
from datetime import datetime
import os
```

```
In [2]: #Keywords are reserved words and can't be used as identifier
#List all keywords
print(keyword.kwlist)
```

```
['False', 'None', 'True', 'and', 'as', 'assert', 'async', 'await', 'break', 'class',
'continue', 'def', 'del', 'elif', 'else', 'except', 'finally', 'for', 'from', 'global',
'if', 'import', 'in', 'is', 'lambda', 'nonlocal', 'not', 'or', 'pass', 'raise',
'return', 'try', 'while', 'with', 'yield']
```

```
In [3]: len(kwlist)
```

```
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NameError                                Traceback (most recent call last)
Cell In[3], line 1
----> 1 len(kwlist)

NameError: name 'kwlist' is not defined
```

```
In [4]: len(keyword.kwlist)
```

```
Out[4]: 35
```

```
In [5]: a = 20
id(a)
```

```
Out[5]: 140716513539592
```

```
In [6]: hex(id(a))
```

```
Out[6]: '0x7ffb1dcdb608'
```

```
In [7]: hex(140716513539592)
```

```
Out[7]: '0x7ffb1dcdb608'
```

```
In [8]: (a, type(a), hex(id(a)))
```

```
Out[8]: (20, int, '0x7ffb1dcdb608')
```

```
In [9]: #Variable assignment
a = 10
b = 5
c = 'ABC'
print(a)
print(b)
print(c)
```

10
5
ABC

```
In [10]: #Multiple assignment
a,b,c = 10, 20, 'ABC'
print(a)
print(b)
print(c)
```

10
20
ABC

```
In [13]: a=b=c=d=40
print(a,b,c,d)
```

40 40 40 40

```
In [14]: print(id(a))
print(id(b))
print(id(c))
print(id(d))
```

140716513540232
140716513540232
140716513540232
140716513540232

```
In [15]: print(sys.getsizeof(a))    #size of int object in bytes
```

28

```
In [16]: print(isinstance(a, int))    #a is an instance of int
```

True

```
In [17]: #Float datatype
a = 3.5
print(a)
print(type(a))
print(sys.getsizeof(a))
print(isinstance(a,float))
```

3.5
<class 'float'>
24
True

```
In [18]: #Complex datatype
a = 1+2j
print(a)
print(type(a))
print(sys.getsizeof(a))
print(isinstance(a,complex))
```

```
(1+2j)
<class 'complex'>
32
True
```

```
In [19]: #Boolean datatype
a = True
print(a)
print(type(a))
print(sys.getsizeof(a))
print(isinstance(a,bool))
```

```
True
<class 'bool'>
28
True
```

```
In [20]: #Boolean datatype
a = False
print(a)
print(type(a))
print(sys.getsizeof(a))
print(isinstance(a,bool))
```

```
False
<class 'bool'>
28
True
```

```
In [21]: #Boolean datatype
a = 1
print(a)
print(type(a))
print(sys.getsizeof(a))
print(isinstance(a,bool))
```

```
1
<class 'int'>
28
False
```

```
In [22]: bool(0)
```

```
Out[22]: False
```

```
In [23]: bool(1)
```

```
Out[23]: True
```

```
In [24]: bool(None)
```

```
Out[24]: False
```

```
In [25]: bool()
```

```
Out[25]: False
```

```
In [26]: #String
a = 'ABC'
b = a *5
b
```

Out[26]: 'ABCABCABCABCABC'

```
In [27]: len(b)
```

Out[27]: 15

```
In [28]: #String Indexing
s = 'My name is Rashmi'
s[0]      #First character
```

Out[28]: 'M'

```
In [29]: s[len(s)-1]      #Last character
```

Out[29]: 'i'

```
In [30]: s[-1]           #Last character
```

Out[30]: 'i'

```
In [31]: s[6]
```

Out[31]: 'e'

```
In [32]: s[-6]
```

Out[32]: 'R'

```
In [ ]: #String Slicing
```

```
In [33]: s[0:5]          #Fetch from 0 till 5-1 ie 4
```

Out[33]: 'My na'

```
In [34]: s[6:12]
```

Out[34]: 'e is R'

```
In [35]: s
```

Out[35]: 'My name is Rashmi'

```
In [36]: s[-4:]
```

Out[36]: 'shmi'

```
In [37]: s[-6:]
```

```
Out[37]: 'Rashmi'
```

```
In [38]: s[:4]
```

```
Out[38]: 'My n'
```

```
In [39]: s[:6]
```

```
Out[39]: 'My nam'
```

```
In [ ]: #Update and Delete string
```

```
In [40]: s
```

```
Out[40]: 'My name is Rashmi'
```

```
In [42]: s[0:7]
```

```
Out[42]: 'My name'
```

```
In [43]: s[0:7] = 'Balurka'
```

```
-----  
TypeError                                Traceback (most recent call last)  
Cell In[43], line 1  
----> 1 s[0:7] = 'Balurka'  
  
TypeError: 'str' object does not support item assignment
```

```
In [44]: del s  
s
```

```
-----  
NameError                                Traceback (most recent call last)  
Cell In[44], line 2  
      1 del s  
----> 2 s  
  
NameError: name 's' is not defined
```

```
In [45]: #String Concat  
s1 = "Hello"  
s2 = "Rashmi"  
s3 = s1+s2  
s3
```

```
Out[45]: 'HelloRashmi'
```

```
In [48]: s4 = s1+' '+s2  
s4
```

Out[48]: 'Hello Rashmi'

In []:

