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

Keywords

In [3]:
```
print(keyword.kwlist)
```

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

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

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

Identifiers

In [5]:
```
1var = 10
```

```
  Cell In[5], line 1
    1var = 10
    ^
SyntaxError: invalid decimal literal
```

In [6]:
```
val2@ = 35
```

```
  Cell In[6], line 1
    val2@ = 35
          ^
SyntaxError: invalid syntax
```

In [7]:
```
import = 125
```

```
  Cell In[7], line 1
    import = 125
           ^
SyntaxError: invalid syntax
```

In [8]:
```
val2 = 10
```

In [9]:
```
val_ = 99
```

Comments in Python

In [13]:
```
# Single line comment
val1 = 10
```

```
In [14]: # Multiple line commnt
         val1 = 10
```

```
In [15]: '''
         Multiple
         line
         comment
         '''
         val1 = 10
```

```
In [16]: """
         Multiple
         line
         comment
         """
         val1 = 10
```

Statements

```
In [18]: p = 20
         q = 20
         r = q
         p, type(p), hex(id(p))

Out[18]: (20, int, '0x7ffad0d9b608')
```

```
In [19]: q , type(q), hex(id(q))

Out[19]: (20, int, '0x7ffad0d9b608')
```

```
In [20]: r , type(r), hex(id(r))

Out[20]: (20, int, '0x7ffad0d9b608')
```

```
In [21]: p = 20
         p = p + 10
         p

Out[21]: 30
```

Variable Assignment

```
In [22]: intvar = 10
         floatvar = 2.57
         strvar = "Python Language"

         print(intvar)
         print(floatvar)
         print(strvar)

        10
        2.57
        Python Language
```

Multiple Assignments

In [23]:
```
intvar , floatvar, strvar = 10,2.57,"Python Language"
print(intvar)
print(floatvar)
print(strvar)
```

```
10
2.57
Python Language
```

In [24]:
```
p1 = p2 = p3 = p4 = 44
print(p1,p2,p3,p4)
```

```
44 44 44 44
```

Data Types

Numeric

In [25]:
```
val1 = 10
print(val1)
print(type(val1))
print(sys.getsizeof(val1))
print(val1, " is Integer?", isinstance(val1, int))
```

```
10
<class 'int'>
28
10  is Integer? True
```

In [26]:
```
val2 = 92.78
print(val2)
print(type(val2))
print(sys.getsizeof(val2))
print(val2, " is float?", isinstance(val2, float))
```

```
92.78
<class 'float'>
24
92.78  is float? True
```

In [27]:
```
val3 = 25 + 10j
print(val3)
print(type(val3))
print(sys.getsizeof(val3))
print(val3, " is complex?", isinstance(val3, complex))
```

```
(25+10j)
<class 'complex'>
32
(25+10j)  is complex? True
```

In [31]:
```
sys.getsizeof(int())
```

Out[31]:
```
28
```

```
In [29]: sys.getsizeof(float())

Out[29]: 24
```

```
In [32]: sys.getsizeof(complex())

Out[32]: 32
```

Boolean

```
In [33]: bool1 = True
```

```
In [34]: bool2 = False
```

```
In [35]: print(type(bool1))

         <class 'bool'>
```

```
In [36]: print(type(bool2))

         <class 'bool'>
```

```
In [37]: isinstance(bool1, bool)

Out[37]: True
```

```
In [38]: bool(0)

Out[38]: False
```

```
In [39]: bool(1)

Out[39]: True
```

```
In [40]: bool(None)

Out[40]: False
```

```
In [41]: bool (False)

Out[41]: False
```

Strings String Creation

```
In [42]: str1 = "HELLO PYTHON"
         print(str1)

         HELLO PYTHON
```

```
In [43]: mystr = 'Hello World'
         print(mystr)

         Hello World
```

In [44]:

```python
mystr = "Hello World"
print(mystr)
```

```
Hello World
```

In [45]:

```python
mystr = '''Hello
            World '''
print(mystr)
```

```
Hello
            World
```

In [46]:

```python
mystr = """Hello
           World"""
print(mystr)
```

```
Hello
           World
```

In [47]:

```python
mystr = ('Happy '
'Monday '
'Everyone')
print(mystr)
```

```
Happy Monday Everyone
```

In [48]:

```python
mystr2 = 'Woohoo '
mystr2 = mystr2*5
mystr2
```

Out[48]:

```
'Woohoo Woohoo Woohoo Woohoo Woohoo '
```

In [49]:

```python
len(mystr2)
```

Out[49]:

```
35
```

In [50]:

```python
str1
```

Out[50]:

```
'HELLO PYTHON'
```

In [51]:

```python
str1[0]
```

Out[51]:

```
'H'
```

In [52]:

```python
str1[len(str1)-1]
```

Out[52]:

```
'N'
```

In [53]:

```python
str1[-1]
```

Out[53]:

```
'N'
```

In [54]:

```python
str1[6]
```

Out[54]:

```
'P'
```

```
In [55]: str1[5]

Out[55]: ' '
```

String Slicing

```
In [56]: str1[0:5]

Out[56]: 'HELLO'

In [57]: str1[6:12]

Out[57]: 'PYTHON'

In [58]: str1[-4:]

Out[58]: 'THON'

In [59]: str1[-6:]

Out[59]: 'PYTHON'

In [60]: str1[:4]

Out[60]: 'HELL'

In [61]: str1[:6]

Out[61]: 'HELLO '
```

Update & Delete String

```
In [62]: str1

Out[62]: 'HELLO PYTHON'

In [63]: str1[0:5] = 'HOLAA'

---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
Cell In[63], line 1
----> 1 str1[0:5] = 'HOLAA'

TypeError: 'str' object does not support item assignment

In [64]: del str1
         print(srt1)
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
Cell In[64], line 2
      1 del str1
----> 2 print(srt1)

NameError: name 'srt1' is not defined
```

String concatenation

```
In [65]: s1 = "Hello"
         s2 = "Asif"
         s3 = s1 + s2
         print(s3)
```

```
HelloAsif
```

```
In [ ]:
```