In [1]:
```
import sys
sys.version
```

Out[1]:
```
'3.13.5 | packaged by Anaconda, Inc. | (main, Jun 12 2025, 16:37:03) [MSC v.1929 6
4 bit (AMD64)]'
```

Python variable = identifer = object

syntax (variable = value)

RULES TO DECLARE PYTHON VARIABLE

In [3]:
```
var = 8
VAR
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
Cell In[3], line 2
      1 var = 8
----> 2 VAR

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

In [4]:
```
var
```

Out[4]:
```
8
```

In [5]:
```
v@ = 16
v@
```

```
  Cell In[5], line 1
    v@ = 16
       ^
SyntaxError: invalid syntax
```

In [6]:
```
v_ = 20
v_
```

Out[6]:
```
20
```

In [7]:
```
1var = 24
1var
```

```
  Cell In[7], line 1
    1var = 24
    ^
SyntaxError: invalid decimal literal
```

In [8]:
```
var1=8
var1
```

Out[8]:
```
8
```

In [9]:
```
import keyword
keyword.kwlist
```

Out[9]:
```
['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 [10]:
```
len(keyword.kwlist)
```

Out[10]:
```
35
```

In [11]:
```
for=8
```

```
  Cell In[11], line 1
    for=8
        ^
SyntaxError: invalid syntax
```

In [12]:
```
DEF=10
DEF
```

Out[12]: 10

In [13]:
```
lenght = 10
width = 5
area = lenght*width
print(area)
```

```
50
```

PYTHON VARIABLE ----15 oct

In [1]:
```
false = 56
false
```

Out[1]: 56

In [2]:
```
False = 56
False
```

```
  Cell In[2], line 1
    False = 56
    ^
SyntaxError: cannot assign to False
```

Python data types

int float bool string complex

In [3]:
```
i = 5
i
```

Out[3]: 5

In [4]:
```
type(i)
```

Out[4]: int

In [5]:
```
f=110.45
f
```

Out[5]: 110.45

In [6]:
```
type(f)
```

Out[6]: float

In [9]:
```
print(i)
print(f) # if required more than 1 output
```

```
5
110.45
```

In [10]:
```
i+f
```

Out[10]: 115.45

In [11]:
```
i-f
```

Out[11]: -105.45

In [12]:
```
i*f
```

Out[12]: 552.25

bool

In [14]:
```
True
```

Out[14]: True

In [15]:
```
False
```

Out[15]: False

In [17]:
```
True + False
```

Out[17]: 1

In [18]:
```
True/True
```

Out[18]: 1.0

In [19]:
```
True * False
```

Out[19]: 0

String

In [22]:
```
s1 = 'hello'
s1
```

Out[22]: 'hello'

In [24]:
```
s2 = " hello"
s2
```

Out[24]: ' hello'

In [26]:
```
s3 = ''' hello
                team '''
s3
```

Out[26]: ' hello \n   team '

In [28]:
```
c= 10 + 20j
c
```

Out[28]: (10+20j)

In [30]:
```
c.real
```

Out[30]: 10.0

In [31]:
```
c.imag
```

Out[31]: 20.0

In [32]:
```
c= 10+20j
d= 20+30j
```

In [33]:
```
print(c+d)
```

(30+50j)

In [34]:
```
print (c-d)
```

(-10-10j)

In [35]:
```
print(c*d)
```

(-400+700j)

Python variable completed

Python datatypes completed

In [ ]:

In [ ]: