Python Variable|Identifiers|Object

In [2]:
```
NIT=15
NIT
```

Out[2]: 15

In [3]:
```
NIT=20
NIT
```

Out[3]: 20

In [4]:
```
v=15
v
```

Out[4]: 15

In [5]:
```
print(v)
print(NIT)
```

```
15
20
```

In [6]:
```
NIT
```

Out[6]: 20

In [7]:
```
v
```

Out[7]: 15

In [8]:
```
var1=20
var1
```

Out[8]: 20

In [9]:
```
var_=67
var_
```

Out[9]: 67

In [10]:
```
x_train,x_test=80,20
print(x_train)
print(x_test)
```

```
80
20
```

In [11]:
```
a=10
b=20
c=30
d=40
```

In [12]:
```
a,b,c,d=10,20,30,40
print(a)
```

```
print(b)
print(c)
print(d)
```

```
10
20
30
40
```

In [13]:
```
aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa=78
print(aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa)
```

```
78
```

In [14]:
```
nit_=50
nit_
```

Out[14]: 50

Python Data Types

Integer

In [17]:
```
i=30
i
```

Out[17]: 30

In [18]:
```
type(i)
```

Out[18]: int

In [19]:
```
print(type(i))
```

```
<class 'int'>
```

In [20]:
```
i
```

Out[20]: 30

In [21]:
```
i1,i2=20,30
```

In [22]:
```
i+i1+i2
```

Out[22]: 80

In [23]:
```
i-i2+i1
```

Out[23]: 20

In [24]:
```
print(i)
print(i1)
print(i2)
```

```
30
20
30
```

In [25]:
```
i-(i2+i1)
```

Out[25]:
```
-20
```

Integer Data Type Completed

Float

In [27]:
```
f=110.23
f
```

Out[27]:
```
110.23
```

In [28]:
```
type(f)
```

Out[28]:
```
float
```

In [29]:
```
f1,f2,f3=2.3,3.4,5.1
```

In [30]:
```
print(f)
print(f1)
print(f2)
print(f3)
```

```
110.23
2.3
3.4
5.1
```

In [31]:
```
f1=1e0
f1
```

Out[31]:
```
1.0
```

In [32]:
```
f2=2e1
f2
```

Out[32]:
```
20.0
```

In [33]:
```
f3=3e2
f3
```

Out[33]:
```
300.0
```

In [34]:
```
f4=3e3
f3
```

Out[34]:
```
300.0
```

In [35]:
```
f4=3e3
f4
```

Out[35]: 3000.0

In [36]:
```
f5=2.4e2
f5
```

Out[36]: 240.0

Bool or Boolean

In [38]:
```
b=True
b
```

Out[38]: True

In [39]:
```
b1=False
b1
```

Out[39]: False

In [40]:
```
print(b)
print(b1)
```

```
True
False
```

In [41]:
```
True+False
```

Out[41]: 1

In [42]:
```
True-False
```

Out[42]: 1

In [43]:
```
False-True
```

Out[43]: -1

In [44]:
```
True+True+True+False-True
```

Out[44]: 2

In [45]:
```
False*True
```

Out[45]: 0

In [46]:
```
True*True
```

Out[46]: 1

In [47]:
```
False/True
```

Out[47]: 0.0

Complex

In [49]:
```
c=1+20j
c
```

Out[49]: (1+20j)

In [50]:
```
type(c)
```

Out[50]: complex

In [51]:
```
c
```

Out[51]: (1+20j)

In [52]:
```
c.real
```

Out[52]: 1.0

In [53]:
```
c.imag
```

Out[53]: 20.0

In [54]:
```
c1=10+20j
c1
```

Out[54]: (10+20j)

In [55]:
```
c1=10+20j
c2=30+40j
print(c1+c2)
print(c1-c2)
```

```
(40+60j)
(-20-20j)
```

String & Slicing

In [57]:
```
s='nit'
s
```

Out[57]: 'nit'

In [58]:
```
type(s)
```

Out[58]: str

In [59]:
```
s1="hello python"
s1
```

Out[59]: 'hello python'

In [60]:
```
s2='''nit
      hello python'''
s2
```

Out[60]: 'nit\n   hello python'

In [61]:
```
s1
```

Out[61]: 'hello python'

In [62]:
```
s1[0]
```

Out[62]: 'h'

In [63]:
```
s1[-4]
```

Out[63]: 't'

In [64]:
```
s1[4]
```

Out[64]: 'o'

In [65]:
```
s1[5]
```

Out[65]: ' '

In [66]:
```
s1
```

Out[66]: 'hello python'

In [67]:
```
s1[-7]
```

Out[67]: ' '

In [68]:
```
s
```

Out[68]: 'nit'

In [69]:
```
print(s[0])
print(s[1])
print(s[2])
```

```
n
i
t
```

In [70]:
```
s1
```

Out[70]: 'hello python'

In [71]:
```
s1[:]
```

Out[71]: 'hello python'

In [72]:
```
s1[2:7]
```

Out[72]: 'llo p'

In [73]:
```
s2
```

Out[73]: 'nit\n   hello python'

In [74]:
```
s3='dataanalyst'
s3
```

Out[74]: 'dataanalyst'

In [75]:
```
s3[0:10]
```

Out[75]: 'dataanalys'

In [76]:
```
s3
```

Out[76]: 'dataanalyst'

In [77]:
```
s3[9:12]
```

Out[77]: 'st'

In [78]:
```
s3
```

Out[78]: 'dataanalyst'

In [79]:
```
s3[0:11:3]
```

Out[79]: 'daas'

In [80]:
```
s3
```

Out[80]: 'dataanalyst'

In [81]:
```
s3[2:-2]
```

Out[81]: 'taanaly'

In [82]:
```
s3
```

Out[82]: 'dataanalyst'

In [83]:
```
print(s)
print(s1)
print(s2)
print(s3)
```

```
nit
hello python
nit
      hello python
dataanalyst
```

In [84]:
```
import keyword
keyword.kwlist
```

Out[84]:
```
['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 [85]:
```
for i in s3:
    print(i)
```

```
d
a
t
a
a
n
a
l
y
s
t
```

Python Data Types Completed

Python Type Casting|Type Conversion

In [87]:
```
int(2.3)
```

Out[87]:
```
2
```

In [88]:
```
int(False)
```

Out[88]: 0

In [89]:
```
int('10')
```

Out[89]: 10

In [90]:
```
import numpy as np
a=np.nan
```

In [91]:
```
type(a)
```

Out[91]: float

In [92]:
```
float(3)
```

Out[92]: 3.0

In [93]:
```
float('10')
```

Out[93]: 10.0

In [94]:
```
complex(10)
```

Out[94]: (10+0j)

In [95]:
```
complex(10,20)
```

Out[95]: (10+20j)

In [96]:
```
complex(2.3)
```

Out[96]: (2.3+0j)

In [97]:
```
complex(2.3,10)
```

Out[97]: (2.3+10j)

In [98]:
```
complex(True)
```

Out[98]: (1+0j)

In [99]:
```
complex(False)
```

Out[99]: 0j

In [100…
```
complex('10')
```

Out[100… (10+0j)

In [101…
```
bool(1)
```

Out[101… True

In [102…
```
bool(0)
```
Out[102… False

In [103…
```
bool(2.3)
```
Out[103… True

In [104…
```
bool()
```
Out[104… False

In [105…
```
bool( )
```
Out[105… False

In [106…
```
bool('nit')
```
Out[106… True

In [107…
```
bool(10+2j)
```
Out[107… True

In [108…
```
bool(0+0j)
```
Out[108… False

In [109…
```
print(str(2))
print(str(2.3))
print(str(True))
print(str(1+2j))
```
```
2
2.3
True
(1+2j)
```

In [110…
```
index='HELLOPYTHON'
index
```
Out[110… 'HELLOPYTHON'

In [111…
```
index[:]
```
Out[111… 'HELLOPYTHON'

In [112…
```
index[::-1]
```
Out[112… 'NOHTYPOLLEH'

In [113…
```
index
```
Out[113… 'HELLOPYTHON'

In [114…
```
index[::-2]
```

Out[114… 'NHYOLH'

In [115…
```
index
```

Out[115… 'HELLOPYTHON'

In [116…
```
index[::-4]
```

Out[116… 'NYL'

In [117…
```
index
```

Out[117… 'HELLOPYTHON'

In [118…
```
index[1:10:3]
```

Out[118… 'EOT'

In [119…
```
index
```

Out[119… 'HELLOPYTHON'

Python Type Casting Completed