

python data type

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

```
Out[1]: 56
```

```
In [2]: type(i)
```

```
Out[2]: int
```

```
In [3]: f = 110.65  
f
```

```
Out[3]: 110.65
```

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

```
Out[4]: float
```

```
In [5]: f1 = 1e0  
f1
```

```
Out[5]: 1.0
```

```
In [6]: f2 = 1e1  
f2
```

```
Out[6]: 10.0
```

```
In [8]: f3 = 2.3e3  
f3
```

```
Out[8]: 2300.0
```

```
In [10]: f4 = 3.5e2  
f4
```

```
Out[10]: 350.0
```

```
In [11]: type(f4)
```

```
Out[11]: float
```

```
In [12]: import keyword  
keyword.kwlist
```

```
Out[12]: ['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 [13]: b = True
         b
```

```
Out[13]: True
```

```
In [14]: a = true
         a
```

```
-----
NameError                                Traceback (most recent call last)
Cell In[14], line 1
----> 1 a = true
      2 a

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

```
In [16]: a = True
         b = False
         print(a+b)
         print(a-b)
         print(a*b)
         print(b/a)
```

```
1
1
0
0.0
```

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

```
-----
ZeroDivisionError                                Traceback (most recent call last)
Cell In[17], line 1
----> 1 True/False

ZeroDivisionError: division by zero
```

```
In [18]: True+True
```

```
Out[18]: 2
```

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

```
Out[20]: (10+20j)
```

```
In [21]: type(c)
```

```
Out[21]: complex
```

```
In [22]: c.real
```

```
Out[22]: 10.0
```

```
In [23]: c.imag
```

```
Out[23]: 20.0
```

```
In [24]: c1 = 30+4.5j
c1
```

```
Out[24]: (30+4.5j)
```

```
In [25]: c2 = 4.4+20j
c2
```

```
Out[25]: (4.4+20j)
```

```
In [27]: c1 + c2
```

```
Out[27]: (34.4+24.5j)
```

```
In [28]: s = 'asmath'
s
```

```
Out[28]: 'asmath'
```

```
In [29]: type(s)
```

```
Out[29]: str
```

```
In [31]: s[1:3]
```

```
Out[31]: 'sm'
```

```
In [33]: s[0]
```

```
Out[33]: 'a'
```

```
In [34]: s[-1]
```

```
Out[34]: 'h'
```

```
In [35]: s[10]
```

```
-----  
IndexError                                Traceback (most recent call last)  
Cell In[35], line 1  
----> 1 s[10]  
  
IndexError: string index out of range
```

```
In [36]: s[-10]
```

```
-----  
IndexError                                Traceback (most recent call last)  
Cell In[36], line 1  
----> 1 s[-10]  
  
IndexError: string index out of range
```

```
In [37]: s
```

```
Out[37]: 'asmath'
```

```
In [38]: s[3:6]
```

```
Out[38]: 'ath'
```

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

```
Out[39]: 'asmath'
```

```
In [40]: s[2:]
```

```
Out[40]: 'math'
```

```
In [41]: s[5:]
```

```
Out[41]: 'h'
```

```
In [42]: s[:5]
```

```
Out[42]: 'asmat'
```

```
In [43]: s[0:6:2]
```

Out[43]: 'amt'

```
In [44]: s = 'prakash'  
s[2:-2]
```

Out[44]: 'aka'

```
In [45]: s = 'prakash'  
s
```

Out[45]: 'prakash'

```
In [46]: s[:]
```

Out[46]: 'prakash'

```
In [47]: s[3]
```

Out[47]: 'k'

```
In [48]: s[2:]
```

Out[48]: 'akash'

```
In [49]: s[:2]
```

Out[49]: 'pr'

```
In [50]: s[2:10]
```

Out[50]: 'akash'

```
In [51]: s[0:6:2]
```

Out[51]: 'paa'

```
In [52]: s[0:5:3]
```

Out[52]: 'pk'

```
In [53]: s[-3]
```

Out[53]: 'a'

```
In [54]: s[-3:-5]
```

Out[54]: ''

```
In [55]: s[-3:-8]
```

Out[55]: ''

```
In [56]: s[-3:]
```

Out[56]: 'ash'

```
In [57]: s[-7:-2]
```

```
Out[57]: 'praka'
```

```
In [58]: s[-3:-2]
```

```
Out[58]: 'a'
```

```
In [59]: s[-3:-1]
```

```
Out[59]: 'as'
```

```
In [60]: s[2:]
```

```
Out[60]: 'akash'
```

```
In [61]: s[2:-2]
```

```
Out[61]: 'aka'
```

```
In [ ]:
```