

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  
Cell In[17], line 1  
----> 1 True/False
```

```
Traceback (most recent call last)
```

```
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

Cell In[35], line 1
----> 1 s[10]

Traceback (most recent call last)

IndexError: string index out of range

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

IndexError

Cell In[36], line 1
----> 1 s[-10]

Traceback (most recent call last)

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 [ ]:
```