

→ ~ ipython

Python 3.8.2 (default, Mar 11 2020, 00:29:50)

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```
IPython 7.13.0 -- An enhanced Interactive Python. Type '?' for help.
```

```
In [1]: a = [1, 2, 3, 4, 5]
```

```
In [2]: a[9]
```

```

IndexError                                Traceback (most recent call last)
<ipython-input-2-044f1ccc0778> in <module>
----> 1 a[9]

```

IndexError: list index out of range

```
In [3]: try:
...:     a[9]
...: else:
...:     print("Failed")
File "<ipython-input-3-0628cb82d226>", line 3
else:
^
```

SyntaxError: invalid syntax

```
In [4]: try:
...:     a[9]
...: except:
...:     print("Failed")
...:
Failed
```

```
In [5]: try:
...:     0/0
...: except:
...:     print("Failed")
...:
Failed
```

In [6]: 0/0

```
ZeroDivisionError                                Traceback (most recent call last)
<ipython-input-6-9ab73e148374> in <module>
----> 1 0/0
```

```
ZeroDivisionError: division by zero
```

```
In [7]: a[9]
```

IndexError Traceback (most recent call last)

```
<ipython-input-7-044f1ccc0778> in <module>
----> 1 a[9]
```

IndexError: list index out of range

```
In [8]: try:
...:     a[9]
...: except IndexError:
...:     print("Failed")
...:
Failed
```

```
In [9]: try:
...:     0/0
...: except IndexError:
...:     print("Failed")
...:
```

ZeroDivisionError Traceback (most recent call last)

```
<ipython-input-9-83e741442e85> in <module>
      1 try:
----> 2     0/0
      3 except IndexError:
      4     print("Failed")
      5
```

ZeroDivisionError: division by zero

```
In [10]: a = [11,2,3,4]
```

```
In [11]: for i range(1,len(a)):
...:     print(a[0]/a[i])
File "<ipython-input-11-2f40d87b1c32>", line 1
      for i range(1,len(a)):
            ^
```

SyntaxError: invalid syntax

```
In [12]: for i in range(1,len(a)):
...:     print(a[0]/a[i])
...:
```

```
5.5
3.6666666666666665
2.75
```

```
In [13]: a = [10,9,8,0]
```

```
In [14]: for i in range(1,len(a)):
...:     print(a[0]/a[i])
...:
```

```
1.1111111111111112
```

1.25

```
-----  
ZeroDivisionError                                Traceback (most recent call last)  
<ipython-input-14-0f18dffffefeb> in <module>  
      1 for i in range(1,len(a)):  
----> 2     print(a[0]/a[i])  
      3
```

ZeroDivisionError: division by zero

```
In [15]: for i in range(1,len(a)):  
        ...:     try:  
        ...:         print(a[0]/a[i])  
        ...:     except ZeroDivisionError as e:  
        ...:         print(e)
```

1.1111111111111112

1.25

division by zero

```
In [16]: a = [10,9,8,0,3,5]
```

```
In [17]: for i in range(1,len(a)):  
        ...:     try:  
        ...:         print(a[0]/a[i])  
        ...:     except ZeroDivisionError as e:  
        ...:         print(e)
```

1.1111111111111112

1.25

division by zero

3.3333333333333335

2.0

```
In [18]: a = []
```

```
In [19]: for i in range(1,len(a)):  
        ...:     try:  
        ...:         print(a[0]/a[i])  
        ...:     except ZeroDivisionError as e:  
        ...:         print(e)
```

```
In [20]: for i in range(1,5):  
        ...:     try:  
        ...:         print(a[0]/a[i])  
        ...:     except ZeroDivisionError as e:  
        ...:         print(e)
```

```
....:
....:
```

IndexError Traceback (most recent call last)

<ipython-input-20-c0854cdce576> in <module>

```
1 for i in range(1,5):
2     try:
----> 3         print(a[0]/a[i])
4     except ZeroDivisionError as e:
5         print(e)
```

IndexError: list index out of range

```
In [21]: for i in range(1,5):
....:     try:
....:         print(a[0]/a[i])
....:     except ZeroDivisionError as e:
....:         print(e)
....:
....:     except IndexError as i:
....:         print(i)
....:
```

list index out of range
list index out of range
list index out of range
list index out of range

```
In [22]: a = []
```

```
In [23]: for i in range(1,5):
....:     try:
....:         print(a[0]/a[i])
....:     except:
....:         print("error")
....:
```

error
error
error
error

```
In [24]: a = [11, 0, 9, 8, 7]
```

```
In [25]: for i in range(1,5):
....:     try:
....:         print(a[0]/a[i])
....:     except:
....:         print("error")
....:
```

error
1.2222222222222223
1.375

1.5714285714285714

```
In [26]: for i in range(1,5):
...:     try:
...:         print(a[0]/a[i])
...:     except ZeroDivisionError as e:
...:         pass
...:     finally:
...:         print(0)
...:
...:
```

0
1.2222222222222223
0
1.375
0
1.5714285714285714
0

```
In [27]: for i in range(1,5):
...:     try:
...:         print(a[0]/a[i])
...:     except ZeroDivisionError as e:
...:         pass
...:     else:
...:         print(0)
...:
...:
```

1.2222222222222223
0
1.375
0
1.5714285714285714
0

```
In [28]: a = 9
```

```
In [29]: if a > 0:
...:     print("correct")
...: else:
...:     raise Exception("You can not provide me ngative numbers")
...:
correct
```

```
In [30]: a = -9
```

```
In [31]: if a > 0:
...:     print("correct")
...: else:
...:     raise Exception("You can not provide me ngative numbers")
...:
```

```
Exception                                Traceback (most recent call last)
<ipython-input-31-c946f1302738> in <module>
      2     print("correct")
      3 else:
----> 4     raise Exception("You can not provide me ngative numbers")
      5
```

Exception: You can not provide me ngative numbers

```
In [32]: for i in range(1,5):
...:     try:
...:         print(a[0]/a[i])
...:     except ZeroDivisionError as e:
...:         print(e)
...:     else:
...:         print(0)
...:
...:
```

```
TypeError                                Traceback (most recent call last)
<ipython-input-32-35a16e4f8622> in <module>
      1 for i in range(1,5):
      2     try:
----> 3     print(a[0]/a[i])
      4     except ZeroDivisionError as e:
      5         print(e)
```

TypeError: 'int' object is not subscriptable

```
In [33]: a = [11, 0,0,9,8,7]
```

```
In [34]: for i in range(1,5):
...:     try:
...:         print(a[0]/a[i])
...:     except ZeroDivisionError as e:
...:         print(e)
...:     else:
...:         print(0)
...:
...:
```

```
division by zero
division by zero
1.2222222222222223
0
1.375
0
```

```
In [35]: def work():
...:     print("Now it's fine")
...:
```

```
In [36]: a = -9
```

```
In [37]: if a < 0:
...:     raise Exception(work())
...:
```

Now it's fine

```
Exception                                Traceback (most recent call last)
<ipython-input-37-27c1662ca7df> in <module>
      1 if a < 0:
----> 2     raise Exception(work())
      3
```

Exception: None

```
In [38]: def work():
...:     print("Now it's fine")
...:     return 1
...:
```

```
In [39]: if a < 0:
...:     raise Exception(work())
...:
```

Now it's fine

```
Exception                                Traceback (most recent call last)
<ipython-input-39-27c1662ca7df> in <module>
      1 if a < 0:
----> 2     raise Exception(work())
      3
```

Exception: 1

```
In [40]: if a < 0:
...:     try:
...:         raise Exception(work())
...:     except Exception as e:
...:         print(e)
...:
```

Now it's fine

1

```
In [41]:
```