

Python Assertions & Exceptions



4.11.2022





Assertions

2.1 Covering Your A** With Assertions

[Code is Here!](#) - [Try it Here!](#)

- ▶ Assertlerin doğru kullanımı, geliştiricilere bir programdaki **kurtarılamayan hatalar** hakkında bilgi vermektir.
- ▶ Assertions, programınız içinde dahili **kendi kendine kontroller** anlamına gelir.
- ▶ They work by declaring some conditions as impossible in your code.

İndirim uygula.

```
def apply_discount(product, discount):  
    price = int(product["price"] * (1 - discount))  
    assert 0 <= price <= product["price"]  
    return price  
  
shoes = {'name': 'Fancy Shoes', 'price': 14900}  
  
print(apply_discount(shoes, 0.25))  
  
# Will throw assertion error.  
# print(apply_discount(shoes, 2.0))
```

More Assertion Examples

Listenin ortalamasını al.

```
def avg(marks):  
    assert len(marks) != 0, "List is empty."  
    return sum(marks)/len(marks)  
  
mark2 = [55,88,78,90,79]  
print("Average of mark2:",avg(mark2))  
  
mark1 = []  
print("Average of mark1:",avg(mark1))
```

How can we explain it better?

[IN A TRY EXCEPT BLOCK!](#)



**Properly doing error
handling**



**Throwing the entire
code in a try/catch**

Exceptions

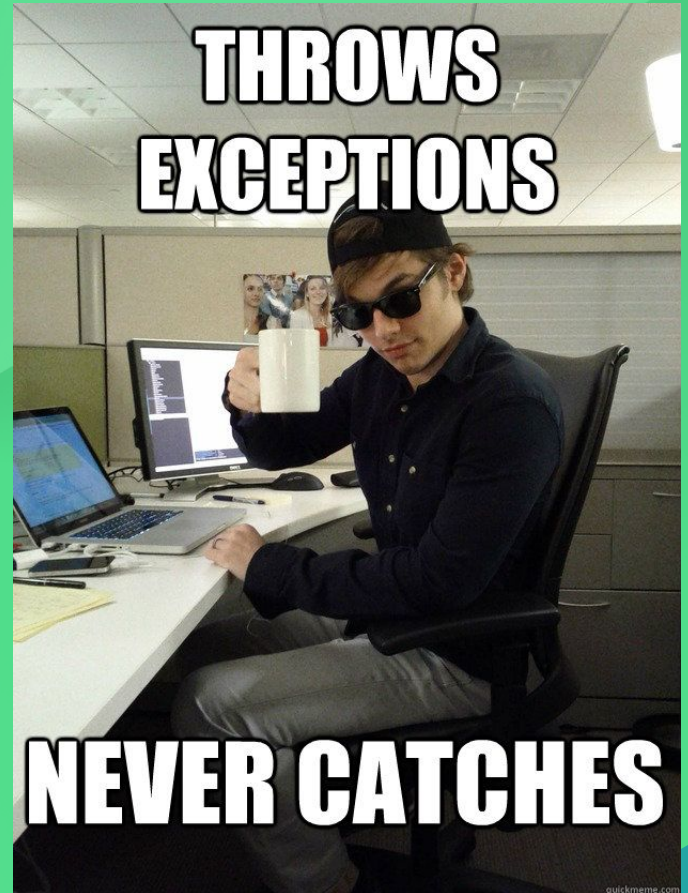
try:

```
from ui.tools.logger import ReadLogger
```

```
logger = ReadLogger.getlogger()
```

except Exception as e:

```
print("Exception here!")
```



Difference between Syntax Error and Exceptions

Syntax Error

```
amount = 10000  
# check if you can purchase Nike Shoes  
if(amount > 2999)  
print("No =")
```

```
File "/home/ac35380186f4ca7978956ff46697139b.py", line 4  
    if(amount>2999)  
        ^
```

SyntaxError: invalid syntax

Exceptions

```
# initialize the amount variable  
marks = 10000  
# perform division with 0  
a = marks / 0  
print(a)
```

Traceback (most recent call last):

```
File "/home/f3ad05420ab851d4bd106ffb04229907.py", line 4, in <module>  
    a=marks/0
```

ZeroDivisionError: division by zero

Most Optimized String Formatting

There are 4 major ways to do string formatting in Python. Kinda unreal and go against Zen of Python for sure.

```
name = 'Bob'

print("Hello, %s", name)
# Hello, Bob
```

```
"Hello, {}".format(name)
# "Hello, Bob"
```

```
print(f'Hello, {name}!')
# 'Hello, Bob!'
```

f-strings are **better, faster, stronger**. So use them whenever you can.

Third

L



Run

Third

Reddit



YT

