decorators

February 20, 2023

```python
[1]: def test():
         return 4+5
```

```python
[2]: test()
```

```
[2]: 9
```

```python
[3]: def test1():
         print("this is my start of my function")
         print(4+5)
         print("this is my end function")
```

```python
[4]: test1()
```

```
this is my start of my function
9
this is my end function
```

```python
[9]: def deco(func):
         def inner_deco():
             print("this is my start of my function")
             func()
             print("this is my end function")
         return inner_deco
```

```python
[13]: @deco
      def test1():
          print(4+5)
```

```python
[14]: test1()
```

```
this is my start of my function
9
this is my end function
```

```python
[15]: import time
      def timer_test(func):
          def timer_test_inner():
```

```
        start=time.time()
        func()
        end=time.time()
        print(end-start)
    return timer_test_inner
```

[18]:
```
@timer_test
def test2():
    for i in range(1,15):
        print(i)
```

[19]:
```
test2()
```

```
1
2
3
4
5
6
7
8
9
10
11
12
13
14
8.988380432128906e-05
```

[ ]: