TD_decorateurs

September 24, 2019

[4]:
```
class memo:

    def __init__(self,func):
        self._func = func
        self._cache = {}

    def __call__(self,*args):
        if args in self._cache:
            return self._cache[args]
        else:
            val = self._func(*args)
            self._cache[args] = val
            return val


@memo
def add(x,y):
    return x+y


add(5,6)
add(5,6)
```

[4]:
```
11
```

[5]:
```
add._cache
```

[5]:
```
{(5, 6): 11}
```

[6]:
```
@memo
def fibo(n):
    if n<2:
        return 1
    else:
        return fibo(n-1)+fibo(n-2)

fibo(45)
```

[6]:
```
1836311903
```

[30]:
```
class compte:

    _stats = {}

    def __init__(self,func):
        self._func = func
        self._stats[func.__name__] = 0

    def __repr__(self):
        return self._func.__doc__

    def __call__(self,*args):
        self._stats[self._func.__name__] += 1
        return self._func(*args)

    @staticmethod
    def stats():
        return compte._stats

@compte
def add(x,y):
    """addition"""
    return x+y


add(5,6)
add(5,6)
```

[30]:
```
11
```

[31]:
```
compte.stats()
```

[31]:
```
{'add': 2}
```

[33]:
```
add
```

[33]:
```
addition
```

[ ]:
```

```