Call Interface

```
def __call__(self, n: int) -> int:
    if n not in self.previous:
        self.previous[n] = self.compute(n)
    return self.previous[n]
```

- Used like this

```
>>> fact= Factorial()
>>> fact(5)
120
```

- Checks memoization cache first. Otherwise computes it.

The Compute Method

```
def compute(self, n: int) -> int:
    if n == 0: return 1
    return n*self.__call__(n-1)
```

- The real work of the callable object.
- A pretty standard recursive factorial definition.
- Depends on memoization to have previous results.