HOMEWORK-7

Since today's computers have high processing power, we can do mathematical calculations very quickly. For this reason, many software developers avoid analyzing the program.

The written program can be analyzed in terms of memory usage, processor usage, network usage and performance. In this assignment, performance analysis will be made and the result memorization method will be used.

The memorization method memorizes the result when a large computation is performed. For example, the factorial of one million is calculated and the result is found and stored. Let's assume this process takes 10 minutes. If you want to calculate the factorial of a million again, the result will be pulled from memory and printed. In this way, there will be no recalculation and 10 minutes will be saved.

The program you will write should contain 2 decorators. One of these decorators should print how many seconds the function to use will take. The other decorator should memorize the used value and its result. This program will be imported by another program that will not be run.

Fibonacci function was called with argument 100000(hundred thousand).

> »fibonacci is calling with argument 100000
>
> fibonacci is last 1.4916865825653076 sec
>
>
> »fibonacci is calling with argument 100000
>
> Value in memory was being used...
>
> fibonacci last 0.0 sec.

Application Of Homework:

Python 3.7 will be used in this assignment. You can just use **functools** and **time** library. You will be given the file to import and run the module you wrote.