

## Part 3 - Performance Testing

**Git Hub Url:** [Performance Testing url](#)

We have written 2 functions :

- One in which the time is calculated without running Tests
- And another in which the time is recorded in a csv file with running test cases

we have used time library to calculate time for our script - `time.perf_counter()`

And in the end we have used Apple Sheets to convert the csv data to Graph

Machine used for performance testing -

Apple M2 chip

- 8-core CPU with 4 performance cores and 4 efficiency cores
- 8-core GPU
- 16-core Neural Engine
- 100GB/s memory bandwidth
- memory - 16 GiB

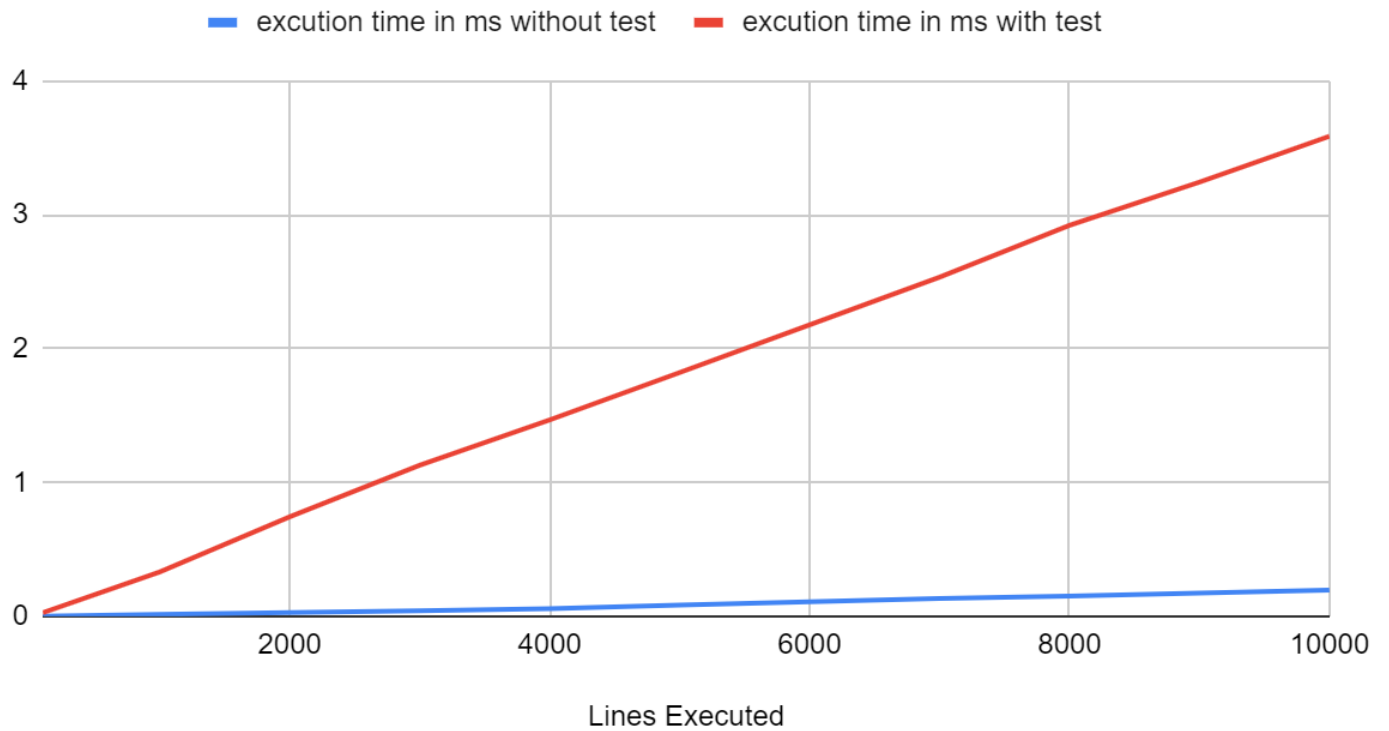
**Execution Time:**

**Encoding:**

[https://docs.google.com/spreadsheets/d/1ECF0wWaNQnx9QjSKAiBJ\\_Jlx3m6FWskLLUwtaQB5DwY/edit?usp=sharing](https://docs.google.com/spreadsheets/d/1ECF0wWaNQnx9QjSKAiBJ_Jlx3m6FWskLLUwtaQB5DwY/edit?usp=sharing)

Lines Executed	execution time in ms without test	execution time in ms with test		
100	0.00136	0.02803		
1000	0.014605	0.33151		
2000	0.02771	0.743743		
3000	0.042094	1.128517		
4000	0.057377	1.468263		
5000	0.084687	1.821663		
6000	0.109265	2.177736		
7000	0.132887	2.534092		
8000	0.151927	2.920939		
9000	0.173752	3.243539		
10000	0.19529	3.58625		

## Performance testing on encoded.json



### Decoding:

<https://docs.google.com/spreadsheets/d/19PEtNRdzAj8L8EI4cFNU8YtNnGuClrKxE9g6GbgD9o/edit?usp=sharing>

Lines Executed	execution time in ms without test		execution time in ms with test
100	0.000999		0.026757
1000	0.010784		0.357009
2000	0.020997		0.751691
3000	0.031264		1.205516
4000	0.041209		1.660844
5000	0.050627		2.149824
6000	0.060251		2.669947
7000	0.069535		3.140494
8000	0.079061		3.573229
9000	0.088173		3.996189
10000	0.097135		4.476168

## Performance testing on decoded.json

