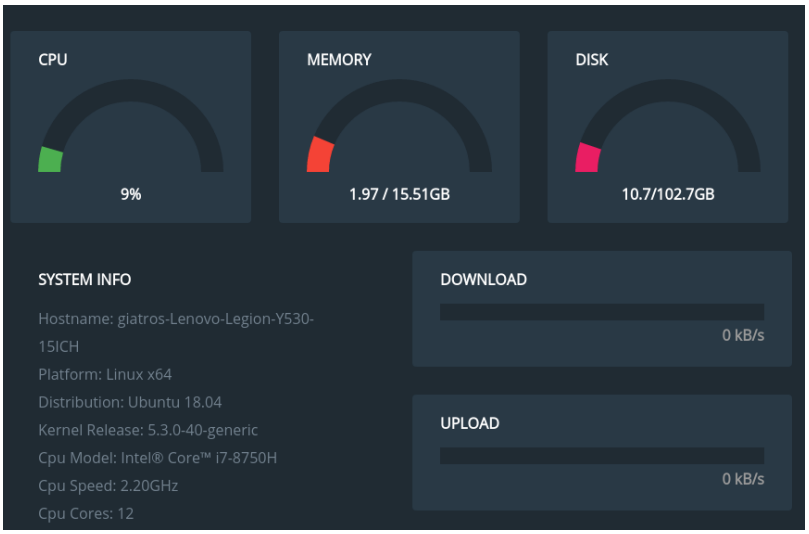
HY342

ASSIGMENT 1

AM: 3357

I ran all tests on my PC witch has the following characteristics:



1.

Average Latency of execution

Threads \ files - gens	Glid 1 - 100	Glid 1 - 1000	Glid 2 - 100	Glid 2 - 1000
1	0m2,200s	0m20,497s	4m11,215s	38m39,291s
2	0m1,297s	0m11,513s	2m36,711s	23m49,867s
4	0m0,956s	0m8,245s	2m5,970s	16m21,852s

Average Speedup

Threads \ files - gens	Glid 1 - 100	Glid 1 - 1000	Glid 2 - 100	Glid 2 - 1000
1/2	1.83	1.78	1.60	1.62
1/4	2.31	2.48	1.99	2.36

I used Bash time command to calculate those results.

I see some linearity between 1 and 2 threads but at 4 threads not so much, I think it can't go less than that in my program, that's why I don't see better speedup.

If there is a batter way to do my parallelism please notify me.

2.

3.

The overhead between omp 1 thread and not using omp at all is probably because of the compiler (non-)optimisation that the omp is doing with the –fopenmp flag.

4.

The speedup between the number of the generations is not quite changing because the “overhead" goes to the parallell code.

But between the 2 files we can see that the speed up is less for the bigger file because the overhead goes to the non-parallel code.