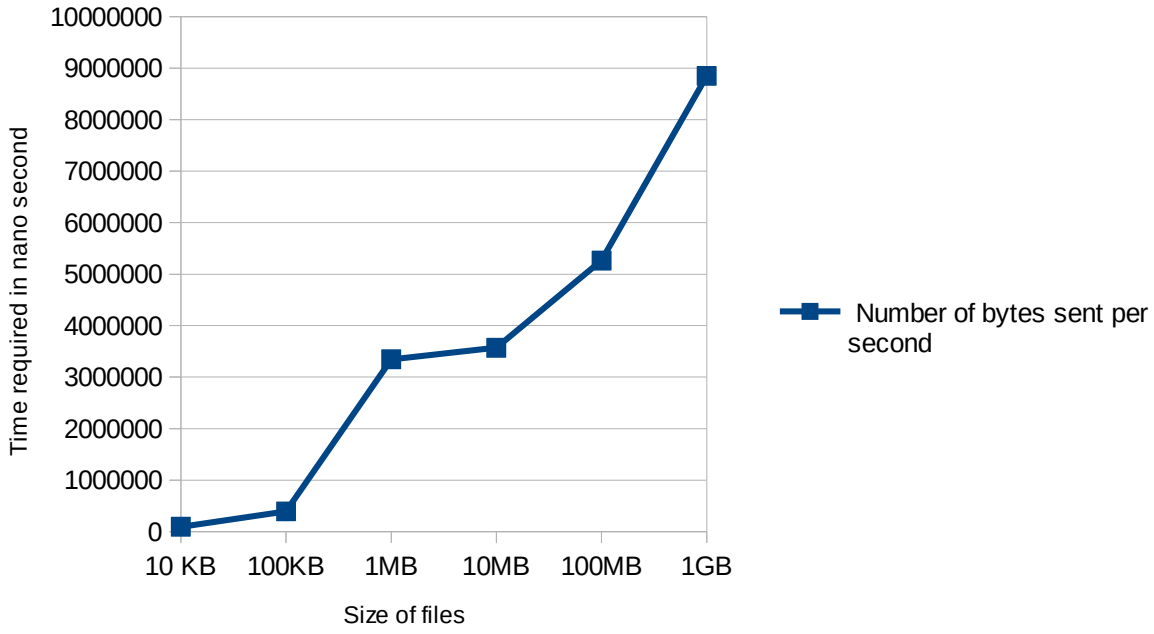
Evaluation part - II

Evaluation is performed on operation performed on 8 Peers concurrently.
Where size of data remains constant as 800MB. Evaluation is performed on data of 800MB. This data is divided into files of different size as 10KB, 100KB, 1MB, 10MB, 100MB and 1GB.
Following is the result of evaluation. More details of evaluation is mentioned after graph.

File Size	Number of files	Total File Size	Time required (Second)	Number of bytes sent per second
10 KB	10000 * 8	800MB	1060.375	94 ,306.25
100KB	1000 * 8	800 MB	255	392,156.86
1MB	100 * 8	800 MB	29.875	3,347,280.33
10MB	10 * 8	800 MB	28	3,571,428.57
100MB	1 * 8	800 MB	19	5,263,157.89
1GB	1 * 8	8 GB	113	8,849,557.52



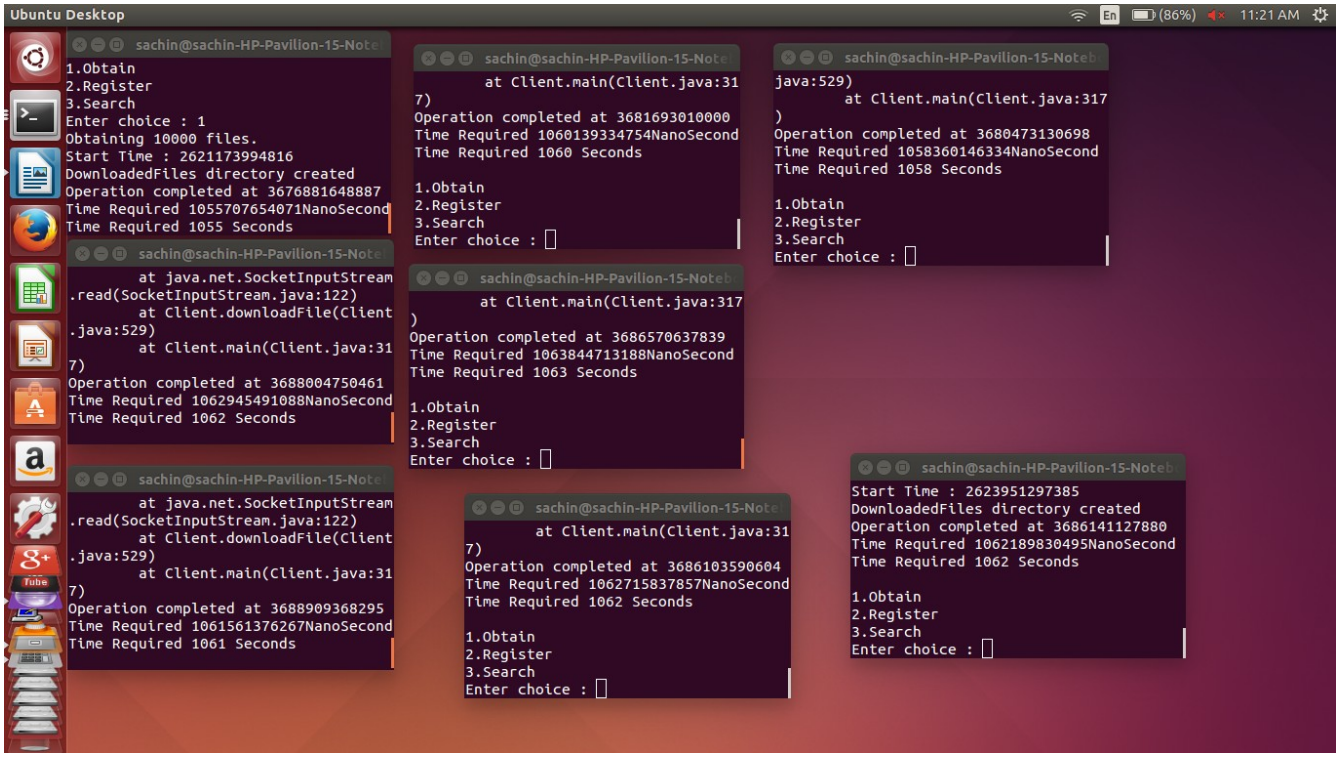
1. 10 KB file :

Total Number of Peers Connected : 8
Files each server processing : 10000 Files
Total Number of files system processing : 80000(8 * 10000)
Each file Size : 10 kb

Time required for OBTAIN operation :

	Peer name							
	Peer-1	Peer-2	Peer-3	Peer-4	Peer-5	Peer-6	Peer-7	Peer-8
Time Required (Seconds)	1055	1060	1058	1062	1063	1061	1062	1062

Avg Time : 1060.375 Seconds
Bytes/Second = (10,000 * 10,000) / 1060.375 = 94306.25957797
files file-size



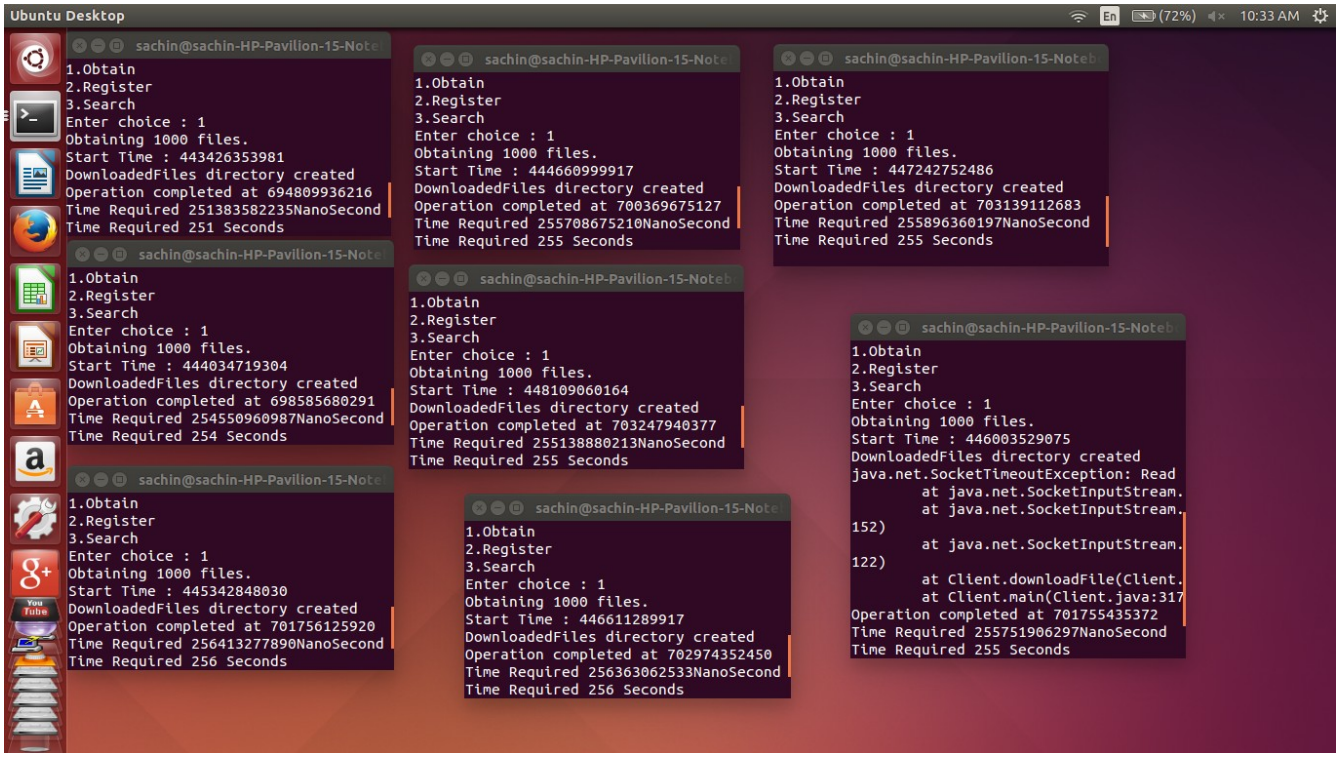
2. 100 KB file :

Total Number of Peers Connected : 8
Files each server processing : 1000 Files
Total Number of files system processing : 8000(8 * 1000)
Each file Size : 100 kb

Time required for OBTAIN operation :

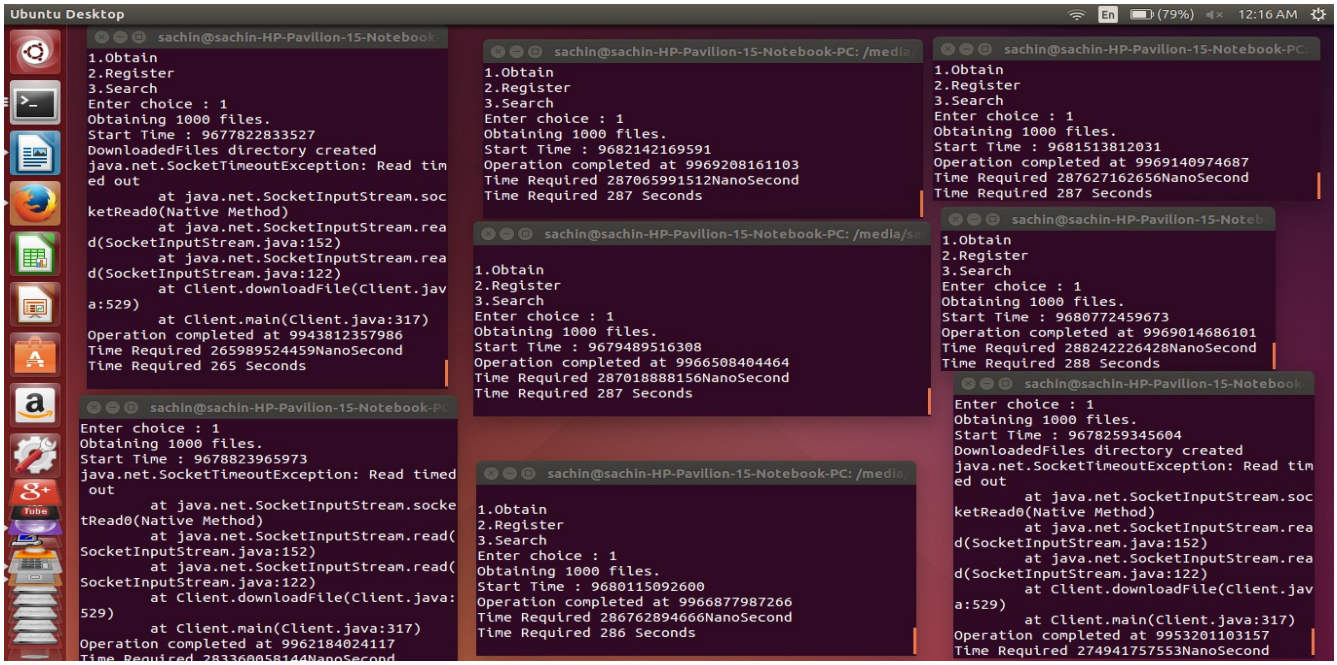
	Peer name							
	Peer-1	Peer-2	Peer-3	Peer-4	Peer-5	Peer-6	Peer-7	Peer-8
Time Required (Seconds)	251	255	255	254	255	256	256	255

Avg Time : 255 Seconds
Bytes/Second = (100,000*1000) / 255 = 392156.86

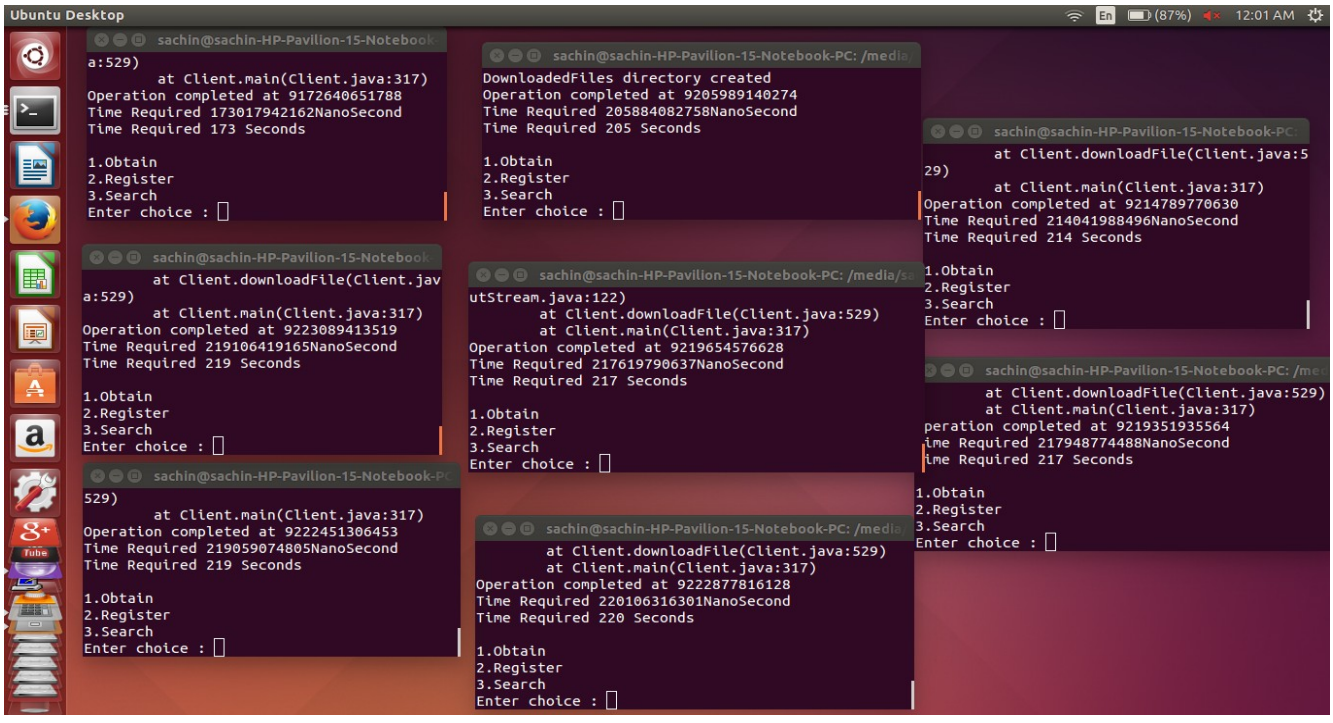


Try 2: OPTAIN operation for 1000 files, each size 100kb.

Avg Time: 287 Seconds
(Socket connection exceptions occurred for 2 Peers. As I handled exception, because of this exception Peer might have not downloaded that file. So 2 peer could not download 1 file each out of 1000 files.)



Try 3:
OPTAIN operation for 1000 files, each size 100kb.
This is additional output I have attached for 100kb files OBTAIN operation.
Here socket exceptions occurred several time. Because of this, I got response time a bit good.
The average response time is 215 seconds.



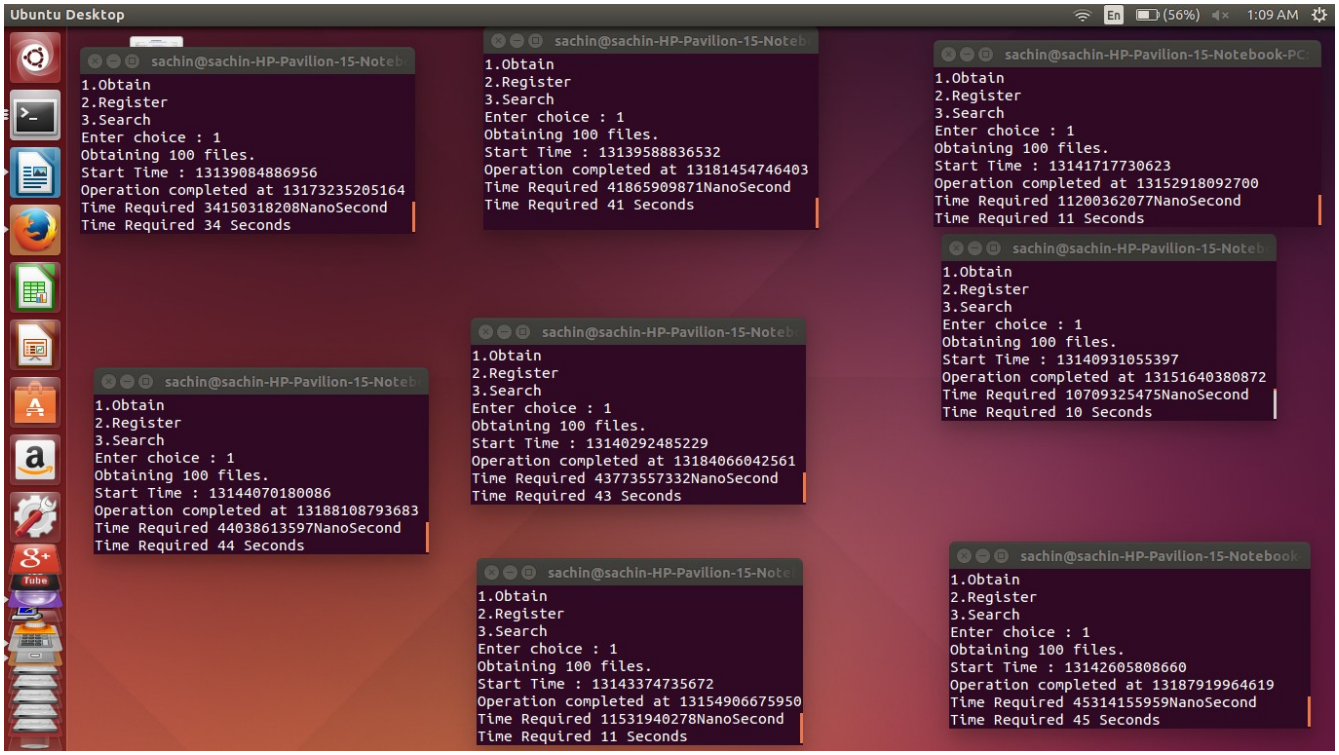
4. 1MB file :

Total Number of Peers Connected : 8
Files each server processing : 100 Files
Total Number of files system processing : 800 (8 * 100)
Each file Size : 1 mb

Time required for OBTAIN operation :

	Peer name							
	Peer-1	Peer-2	Peer-3	Peer-4	Peer-5	Peer-6	Peer-7	Peer-8
Time Required (Seconds)	34	41	11	10	43	44	11	45

Avg Time : 29.875 sec
Bytes per second : (1,000,000 * 100) / 29.875 = 3347280.33
1mb num of file



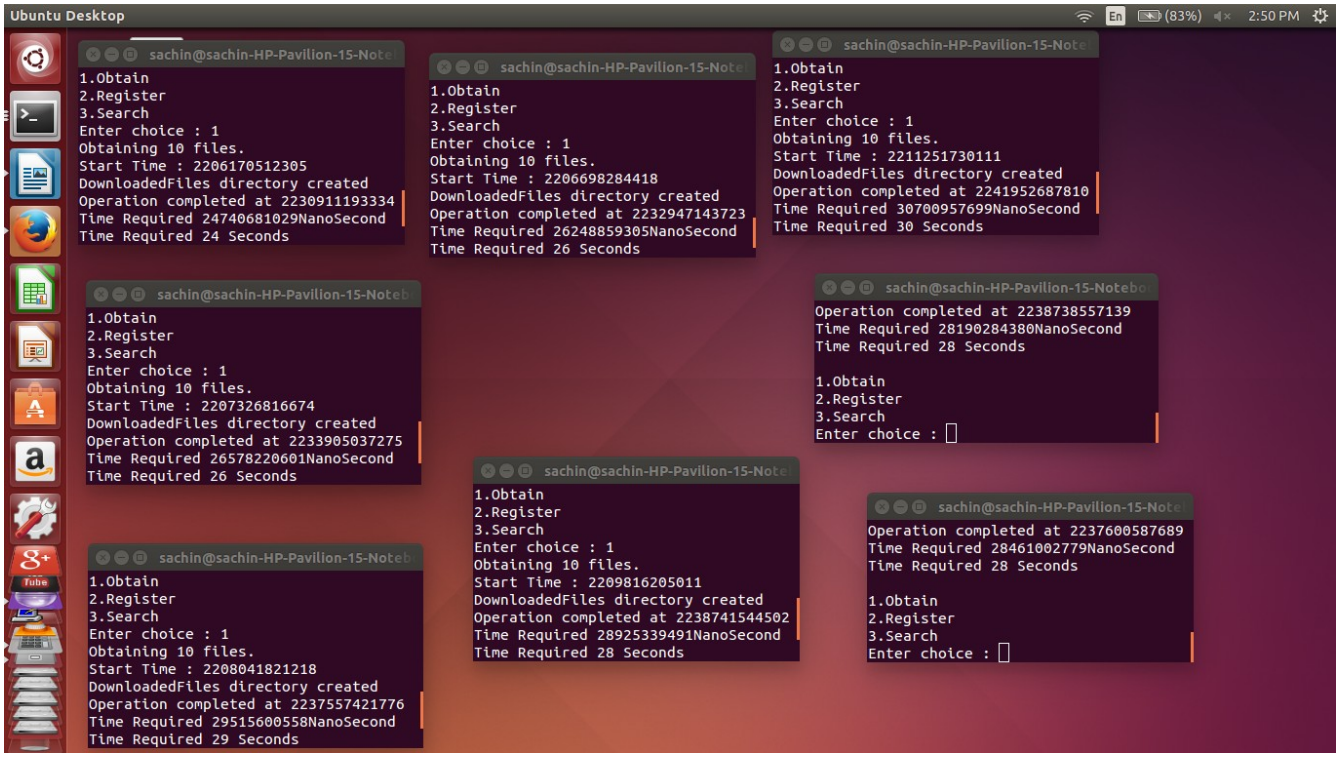
5. 10MB file :

Total Number of Peers Connected : 8
Files each server processing : 10 Files
Total Number of files system processing : 80 (8 * 10)
Each file Size : 10 mb

Time required for OBTAIN operation :

	Peer name							
	Peer-1	Peer-2	Peer-3	Peer-4	Peer-5	Peer-6	Peer-7	Peer-8
Time Required (Seconds)	24	26	30	26	28	28	28	29

Avg Time(Seconds) : 28
Bytes per second : (1,00,00,000 * 10) / 28 = 3571428.57
10mb num of files



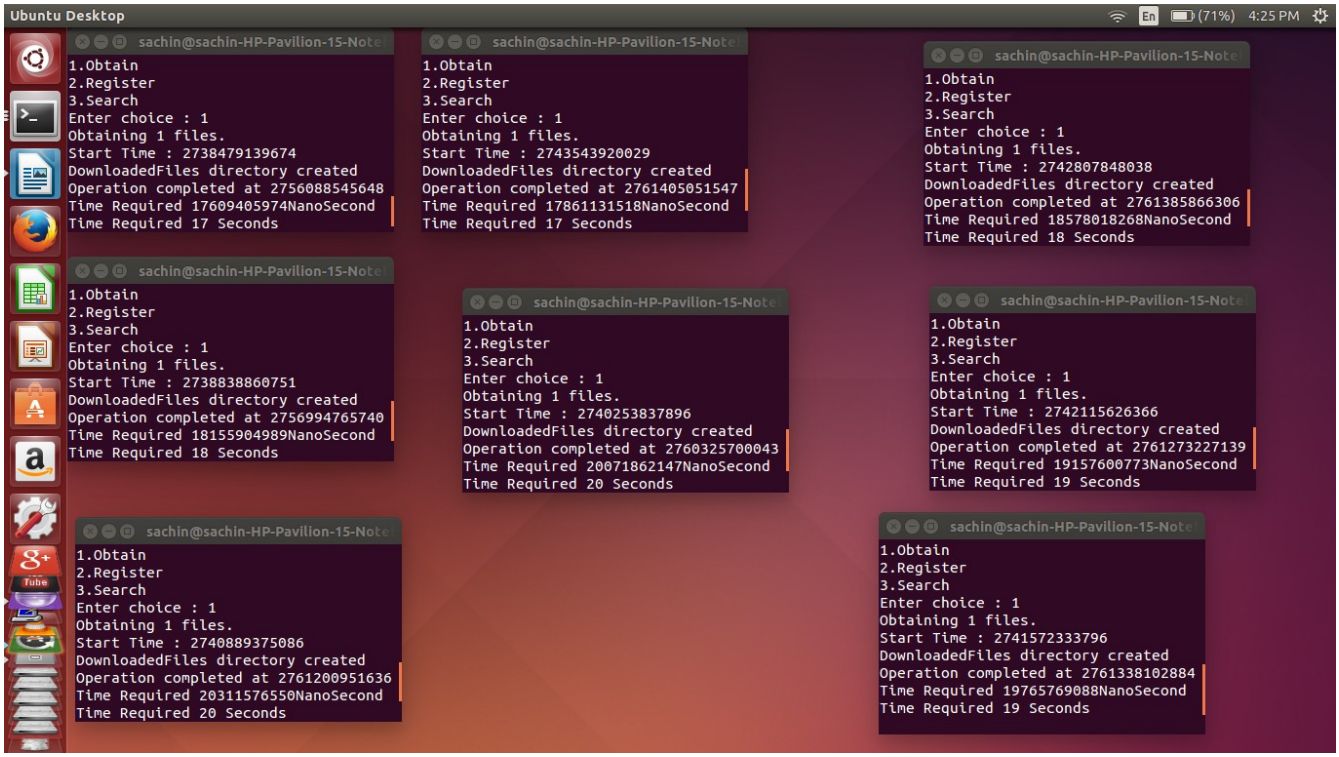
6. 100MB file :

Total Number of Peers Connected : 8
Files each server processing : 1 File
Total Number of files system processing : 8 (8 * 1)
Each file Size : 100 mb

Time required for OBTAIN operation :

	Peer name							
	Peer-1	Peer-2	Peer-3	Peer-4	Peer-5	Peer-6	Peer-7	Peer-8
Time Required (Seconds)	17	17	18	18	20	19	20	19

Avg. Time : 19
Bytes per second : (10,00,00,000 * 1) / 19 = 5263157.894
100mb num of file



7. 1GB file :

Total Number of Peers Connected : 8
Files each server processing : 1 File
Total Number of files system processing : 8 (8 * 1)
Each file Size : 1GB

Time required for OBTAIN operation :

	Peer name							
	Peer-1	Peer-2	Peer-3	Peer-4	Peer-5	Peer-6	Peer-7	Peer-8
Time Required (Seconds)	114	113	111	115	112	110	108	49

Avg Time : 113
Bytes per second: (1,00,00,00,000 * 1) / 113 = 8849557.52 Seconds
1GB Num of file