

DATA SYSTEMS
Assignment 4
Roll No : 2020201071

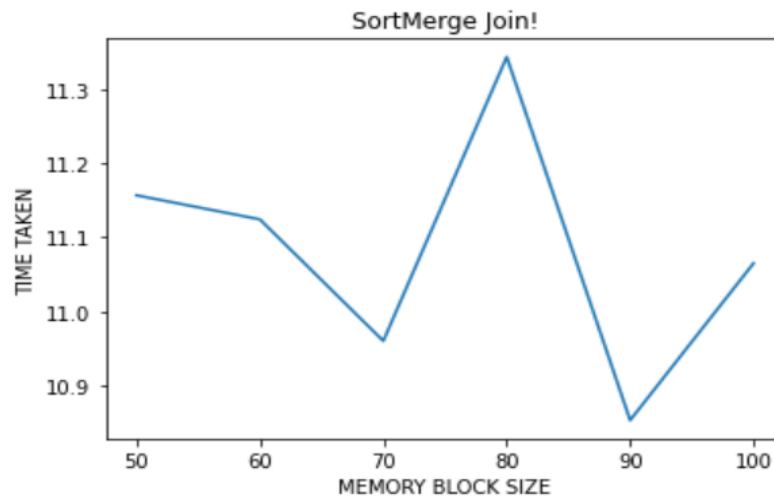
System Configuration :

```
ritvik@ritvik-GL62M-7RDX:~$ lscpu
Architecture:          x86_64
CPU op-mode(s):        32-bit, 64-bit
Byte Order:             Little Endian
Address sizes:          39 bits physical, 48 bits virtual
CPU(s):                 8
On-line CPU(s) list:   0-7
Thread(s) per core:     2
Core(s) per socket:     4
Socket(s):              1
NUMA node(s):           1
Vendor ID:              GenuineIntel
CPU family:             6
Model:                  158
Model name:             Intel(R) Core(TM) i7-7700HQ CPU @ 2.80GHz
Stepping:               9
CPU MHz:                900.108
CPU max MHz:            3800.0000
CPU min MHz:            800.0000
BogoMIPS:               5599.85
Virtualization:         VT-x
L1d cache:              128 KiB
L1i cache:              128 KiB
L2 cache:               1 MiB
L3 cache:               6 MiB
```

OBSERVATION :

- **SortMerge Join**

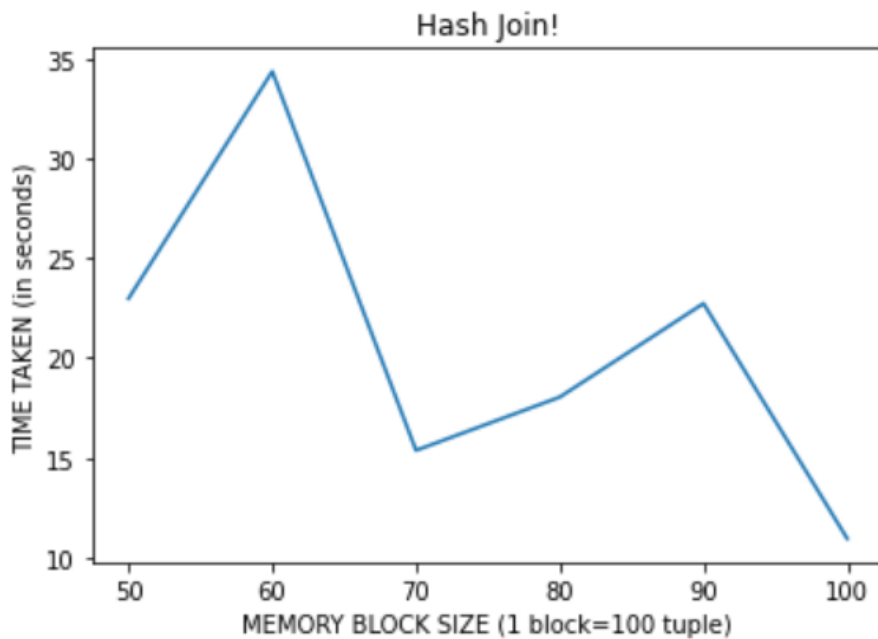
Memory Block (1 block=100 tuple)	Time Taken (in sec)
50	11.156969785690308
60	11.124422788619995
70	10.96007513999939
80	11.344055652618408
90	10.852914810180664
100	11.065177917480469



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- **Hash Join**

Memory Block (1 block=100 tuple)	Time Taken (in sec)
50	22.97679090499878
60	34.35667872428894
70	15.370234727859497
80	18.03986406326294
90	22.732250928878784
100	10.945847511291504



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