Data Systems Assignment 4

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SYSTEM CONFIGURATION

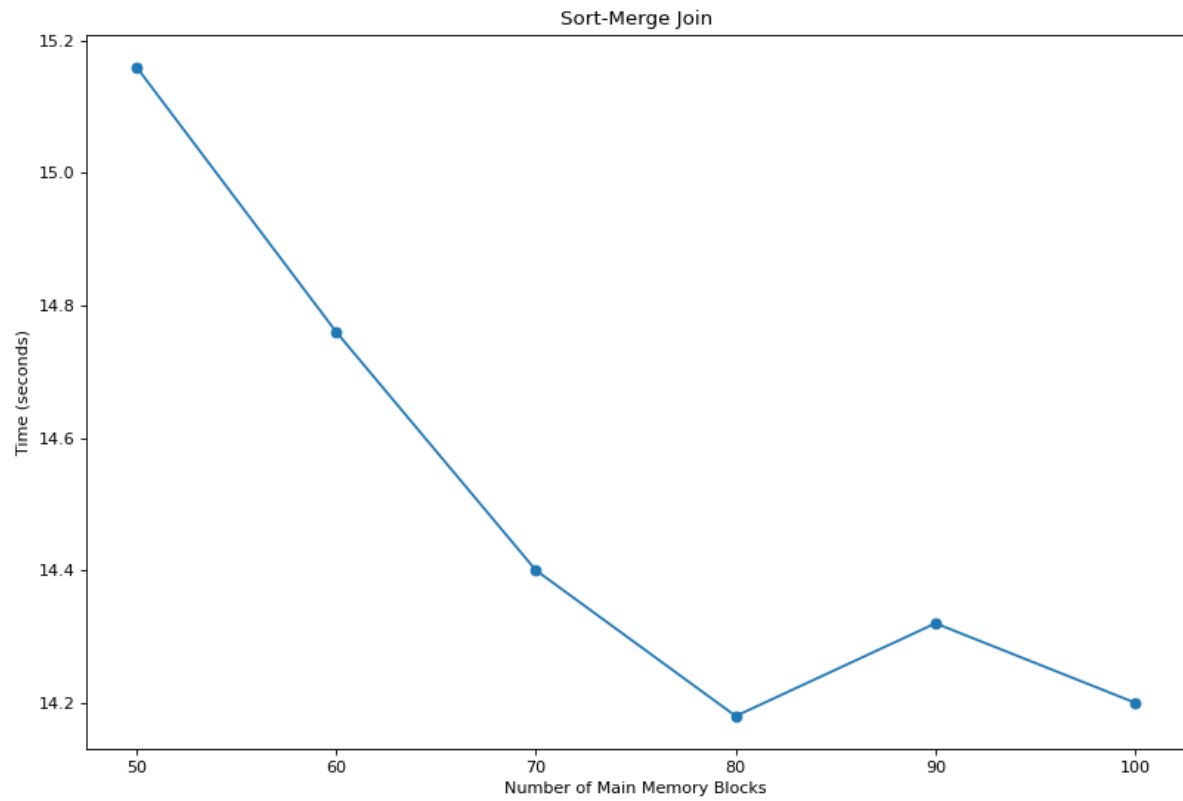Processor: Intel(R) Core(TM) i7-5500U CPU @ 2.40GHz
Memory: 8 GB
Hard disk: 1 TB
OS: Ubuntu 20.04.1 LTS

INPUT RELATIONS

- R(X, Y) and S(Y, Z) with join condition as R.Y = S.Y.
- Both relations had 50000 records.
- Each column had a string of length 7 characters.
- Each block can have a maximum of 100 records.4

SORT-MERGE JOIN

Number of Main Memory Blocks	Execution Time
50	15.16
60	14.76
70	14.40
80	14.18
90	14.32
100	14.20

Sort-Merge Join

HASH JOIN

Number of Main Memory Blocks	Execution Time
50	4.14
60	3.62
70	7.58
80	3.07
90	3.26
100	3.25

Hash Join