Analysis of performance Union using Hashing
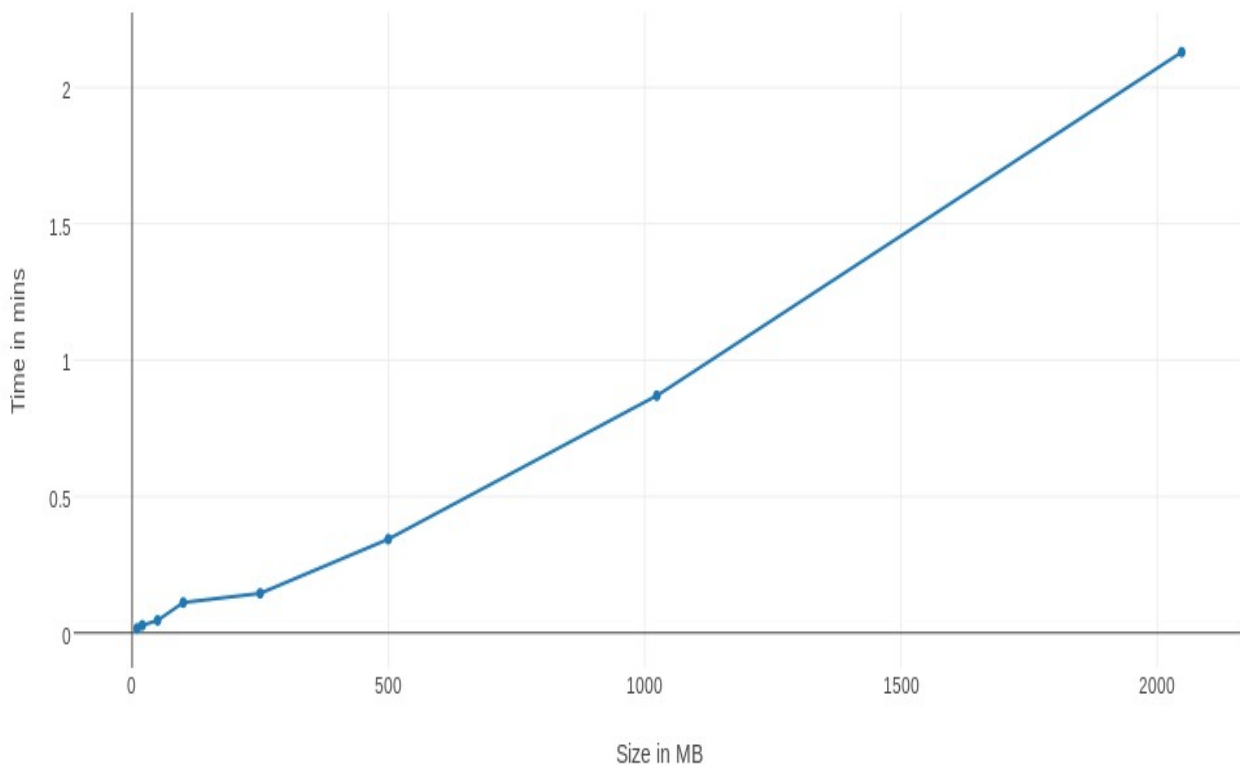
Main memory Blocks : 100   Size of Relation 1 : 5 MB

Record Size(MB)	Time(mins)
10	0.016334
20	0.027316
50	0.045366
100	0.11086
250	0.14463
500	0.34338
1024	0.86973
2048	2.12965

Size of Relation 2 vs Time required for Union
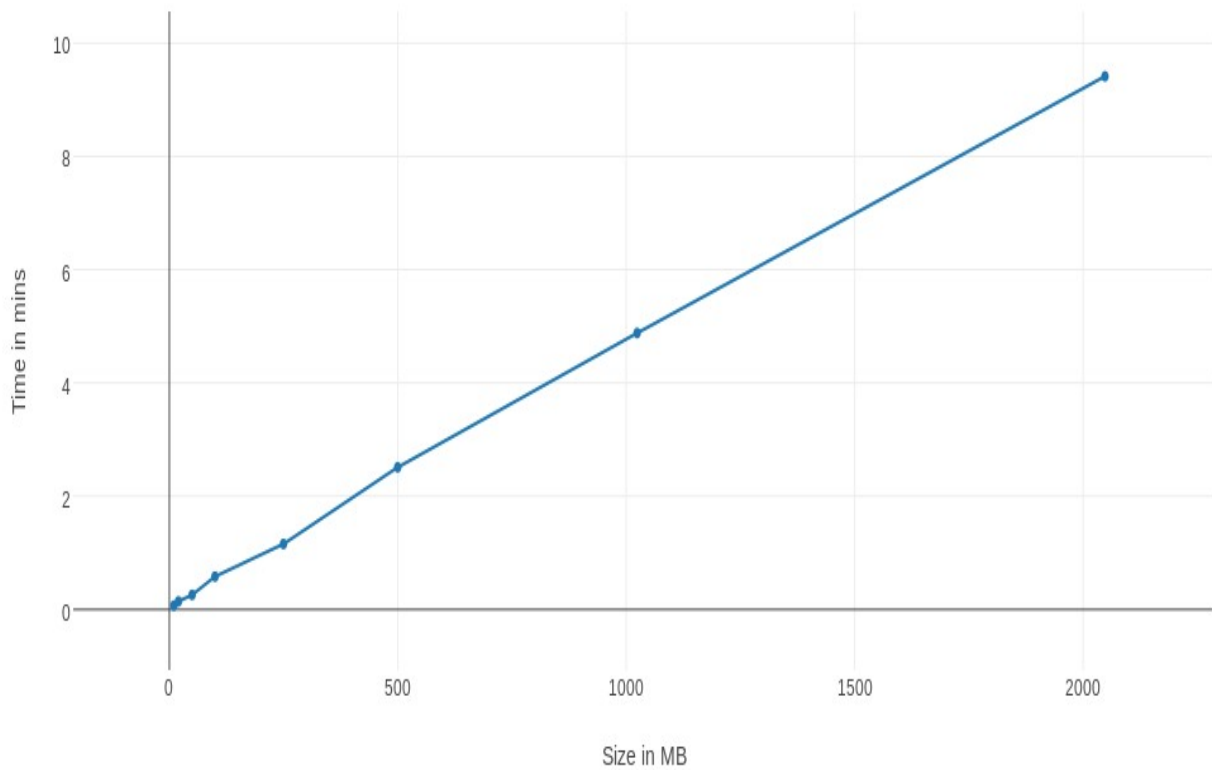
Analysis of performance Union using B

Main memory Blocks : 100   Size of Relation 1 : 5 MB

Record Size(MB)	Time(mins)
10	0.06890
20	0.14226
50	0.25766
100	0.5806
250	1.15618
500	2.5096
1024	4.8809
2048	9.41216

Union using BTree : File Size of Relation 2 vs Time

Inference: We can deduce from above graphs, that for both performing Union using Hashing and B-tree , the time taken increases exponentially as the file size increases.