|  |  |  |  |
| --- | --- | --- | --- |
| # of elements | mergeSort(int) | mergeSort(Integers) | insertionSort(Integers) |
| 10000 | 13 msec. | 28 msec. | 617 msec. |
| 1000000 | 174 msec. | 904 msec. | > 2 min |
| 2000000 | 344 msec. | 1269 msec. | > 2 min |
| 5000000 | 922 msec. | 3647 msec. | > 2 min |
| 6000000 | 1104 msec. | 3999 msec. | > 2 min |
| 10000000 | 1875 msec. | 7598 msec. | > 2 min |
| 15000000 | 2893 msec. | 12901 msec. | > 2 min |

Observations:

Sorting on primitive data types takes longer time than Generic type.

The n square algorithm takes infinite time(> 2 min) for Generic arrays of sizes of the order of 100K and more.

This is empirical proof of order of theoretical comparison of the mergesort and N squared algorithms.