

## Radix Sort Algorithm Analysis

Input Size	String Size	Radix using Insertion Sort (ms)	Radix using Count Sort (ms)
100000	25	81	1549
	50	872811	4772
	75	Taking more than 5 min	7782
250000	25	Taking more than 5 min	5122
	50	Taking more than 5 min	14839
	75	Taking more than 5 min	22557
500000	25	Taking more than 5 min	1515
	50	Taking more than 5 min	30929
	75	Taking more than 5 min	50373
750000	25	Taking more than 5 min	22682
	50	Taking more than 5 min	50147
	75	Taking more than 5 min	76310
1000000	25	Taking more than 5 min	31458
	50	Taking more than 5 min	61590
	75	Taking more than 5 min	95814

Analysis: I am running both the algorithms on my virtual machine. I was getting lots of configuration issues working on windows, so I opted for ubuntu.

1. Radix sort using insertion sort is taking very long time and I am not able to compute running time and my machine was getting hanged.
2. At the same time Radix sort using counting sort with the same input is working smoothly and taking much less time than insertion sort to sort the input.

3. Running time depends upon input parameters. When the size of input increase sorting taking much more time for both the algorithm.