Test Environment : Ubuntu 18.06

System Details.

We ran the analysis on two different systems

The results are so below.

All fields marked in orange are tested on the following system

    product: Intel(R) Core(TM) i5-3210M CPU @ 2.50GHz

    vendor: Intel Corp.

    physical id: 1

    bus info: cpu@0

    size: 2789MHz

    capacity: 3100MHz

    width: 64 bits

Number of cores : 4

Hard disk size : 500 GB , type : HDD

RAM : DDR3 , 12GB

All the fields not marked in orange are tested in system with following requirements

 Number of cores : 8

Hard disk size : 500 GB , type : HDD

RAM : DDR4 , 16GB

Analysis : All Times in Seconds.

Page Size	Record Size	Insert Run Time	Delete Run Time	Read Mode	Scan Length	Read Run Time
1024	8	5.9	16.5	s	10	0.05
					100	0.055
					1000	0.05
				r	10	0.5
					100	7.2
					1000	82
	64	15.8	58.6	s	10	0.61
					100	0.61
					1000	0.6
				r	10	3.73
					100	38.2
					1000	402
	256	85	227.5	s	10	2.9
					100	2.4
					1000	2.7
				r	10	28.5
					100	220
					1000	2160

Page Size	Record Size	Insert Run Time	Delete Run Time	Read Mode	Scan Length	Read Run Time
4096	8	4.3	10	s	10	0.029
					100	0.024
					1000	0.027
				r	10	0.58
					100	5.45
					1000	55.26
	64	10.7	111.5	s	10	0.0038
					100	0.0042
					1000	0.0072
				r	10	2.2
					100	22.24
					1000	214.1
	256	81.67	107.5	s	10	0.01
					100	0.012
					1000	0.012
				r	10	12
					100	108.5
					1000	1066

Page Size	Record Size	Insert Run Time	Delete Run Time	Read Mode	Scan Length	Read Run Time
16384	8	4.1	7.5	s	10	0.06
					100	0.05
					1000	0.05
				r	10	0.25
					100	3.2
					1000	33.89
	64	8.65	19.5	s	10	0.17
					100	0.18
					1000	0.18
				r	10	1.17
					100	14.82
					1000	143.83
	256	96.5	61.35	s	10	1.04
					100	1.09
					1000	1.11
				r	10	6.4
					100	66
					1000	728.6