System Preferences: MacOS Monterey

MacBook Pro, Mid 2015

Processor: 2.2 GHz Quad-Core Intel Core i7

Memory: 16 GB 1600 MHz DDR3

hashArray[] size 10

|  |  |  |
| --- | --- | --- |
| Names | Timing in Nano Seconds | Array |
| Abbott | 349470 | 1004 |
| Beaudoin | 273708 | 1506 |
| Casillas | 218336 | 2253 |
| Deleon | 665895 | 2911 |
| Easter | 852404 | 3197 |
| Gonzalez | 211098 | 3893 |
| Loftin | 745591 | 5404 |
| Pollack | 340544 | 6909 |
| Valentine | 289378 | 8542 |
| Zuniga | 286348 | 9139 |

hashArray[] size 100

|  |  |  |
| --- | --- | --- |
| Names | Timing in Nano Seconds | Array |
| Abbott | 75693 | 1004 |
| Beaudoin | 34434 | 1506 |
| Casillas | 80225 | 2253 |
| Deleon | 74263 | 2911 |
| Easter | 110787 | 3197 |
| Gonzalez | 46012 | 3893 |
| Loftin | 141704 | 5404 |
| Pollack | 87079 | 6909 |
| Valentine | 37581 | 8542 |
| Zuniga | 138194 | 9139 |

hashArray[] size 1,000

|  |  |  |
| --- | --- | --- |
| Names | Timing in Nano Seconds | Array |
| Abbott | 65925 | 1004 |
| Beaudoin | 24307 | 1506 |
| Casillas | 35292 | 2253 |
| Deleon | 54538 | 2911 |
| Easter | 83041 | 3197 |
| Gonzalez | 38028 | 3893 |
| Loftin | 111938 | 5404 |
| Pollack | 44230 | 6909 |
| Valentine | 20260 | 8542 |
| Zuniga | 105067 | 9139 |

When I made my has Array size 10 it took more time to find my search element. But when I increase my array size from 10 to 100 and 1000 it became much more faster. Between 100 – 1000 it was not that much faster as like from 10 to 100 but, it was faster for my 4500+ records. And if it was more than 4,500,000+ record, it would take more time to search an element from file. Probably from 1,000,000 – 4,500,000 will take most likely to be same amount of time.