Compare data structures

Here will be shown information about data structures tests. Like previous tests the source code will be available in the project solution and you can find unrefined information in “..\bin\Debug\..”.

These table represent estimated data information. n – count of times an element is searched, currently data structure has 30 elements.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Approach** | **n = 10** | **n = 50** | **n = 100** | **n = 1000** | **n = 10 000** |
| **List** | 0.0001482 | 0.0001118 | 0.0003934 | 0.0021624 | 0.0172363 |
| **Dictionary** | 0.0000076 | 0.0000160 | 0.0000221 | 0.0001387 | 0.0009846 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Approach** | **n = 100 000** | **n = 1 000 000** | **n = 10 000 000** |
| **List** | 0.1625872 | 1.356988 | 13.3637765 |
| **Dictionary** | 0.0111454 | 0.0855388 | 0.9074941 |

Second set of tests. n – count of elements in data structures where search count is constant- 1000

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Approach** | **n = 10** | **n = 50** | **n = 100** | **n = 1000** | **n = 10 000** |
| **List** | 0.0006302 | 0.0051617 | 0.0075543 | 0.0518832 | 0.5108685 |
| **Dictionary** | 0.0000085 | 0.0000326 | 0.0000501 | 0.0001532 | 0.0012625 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Approach** | **n = 100 000** | **n = 1 000 000** | **n = 10 000 000** |
| **List** | 4.132059 | 42.5419799 | around 8 mins |
| **Dictionary** | 0.0098148 | 0.3034528 | 1.08145325 |