**Name – ADARSH RANA Date –08/08/2025**

**Class- Comp(A)**

**Roll No.- 3203**

**Assignment(3) - Binary Search>Iterative v/s Recursive**

|  |  |  |  |
| --- | --- | --- | --- |
| **ALGORITHM** | **ARRAYSIZE** | **KEY** | **RUNTIME** |
| **ITERATIVE BINARY SEARCH** | 10 | 1 | 7.989747047424316 |
| 10 | 7.989747047424316 |
| 11 | 4.450223207473755 |
| 100 | 1 | 4.350956916809082 |
| 10 | 6.055878639221191 |
| 101 | 3.720867872238159 |
| 1000 | 1 | 5.509658336639404 |
| 1000 | 5.02332067489624 |
| 1001 | 14.747324228286743 |
| 10000 | 1 | 6.378363370895386 |
| 10000 | 7.311659288406372 |
| 10001 | 7.41698956489563 |
| **RECURSIVE BINARY SEARCH** | 10 | 1 | 4.153683423995972 |
| 10 | 6.923473358154297 |
| 11 | 9.700482606887817 |
| 100 | 1 | 4.986189365386963 |
| 10 | 5.612703800201416 |
| 101 | 4.990557670593262 |
| 1000 | 1 | 3.8594906330108643 |
| 1000 | 6.7943644523620605 |
| 1001 | 5.923000812530518 |
| 10000 | 1 | 6.265057802200317 |
| 10000 | 6.3212854862213135 |
| 10001 | 8.762051820755005 |