|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  | 7 |  |  |  |  |  |  |  |
|  |  |  | 3 |  |  |  |  |  |  |  | 11 |  |  |  |
|  | 1 |  |  |  | 5 |  |  |  | 9 |  |  |  | 13 |  |
| 0 |  | 2 |  | 4 |  | 6 |  | 8 |  | 10 |  | 12 |  | 14 |

sortedArray = [0,1,2,3,4,5,6,7,8,9,10,11,12,13,14]

KEY\_SIZE = 15

let key = 4

main()

🡪 rBinarySearch(sortedArray, 0, 14, 4)//rBinarySearch(sortedArray, 0, KEY\_SIZE-1, key)

first = 0

last = 14

mid = (0+14)/2 = 7

key:4 < sortedArray[mid:7]:7

* rBinarySearch(sortedArray, 0, 6, 4)//rBinarySearch(sortedArray, first, mid-1, key)

first = 0

last = 6

mid = (0+6)/2 = 3

key:4 > sortedArray[mid:3]:3

* rBinarySearch(sortedArray, 4, 6, 4)//rBinarySearch(sortedArray, mid+1, last, key)

first = 4

last = 6

mid = (4+6)/2 = 5

key:4 < sortedArray[mid:5]:5

* rBinarySearch(sortedArray, 4, 4, 4)//rBinarySearch(sortedArray, first, mid-1, key)

first = 4

last = 4

mid = (4+4)/2 = 4

key:4 == sortedArray[mid:4]:4