List

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | get | add | contains | next | remove |
| ArrayList | O(1) | O(1) | O(n) | O(1) | O(n) |
| LinkedList | O(n) | O(1) | O(n) | O(1) | O(1) |
| CopyOnWrite-ArrayList | O(1) | O(n) | O(n) | O(1) | O(n) |

Set

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | add | contains | next | notes |
| HashSet | O(1) | O(1) | O(h/n) | h is the table capacity |
| LinkedHashSet | O(1) | O(1) | O(1) |  |
| CopyOnWriteArraySet | O(n) | O(n) | O(1) |  |
| EnumSet | O(1) | O(1) | O(1) |  |
| TreeSet | O(log n) | O(log n) | O(log n) |  |
| ConcurrentSkipListSet | O(log n) | O(log n) | O(1) |  |

Map

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | add | contains | next | notes |
| HashMap | O(1) | O(1) | O(h/n) | h is the table capacity |
| LinkedHashMap | O(1) | O(1) | O(1) |  |
| IdentityHashMap | O(1) | O(1) | O(h/n) | h is the table capacity |
| EnumMap | O(1) | O(1) | O(1) |  |
| TreeMap | O(log n) | O(log n) | O(log n) |  |
| ConcurrentHashMap | O(1) | O(1) | O(h/n) | h is the table capacity |
| ConcurrentSkipListMap | O(log n) | O(log n) | O(1) |  |

Queue

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | offer | peek | poll | size |
| PriorityQueue | O(log n) | O(1) | O(log n) | O(1) |
| ConcurrentLinkedQueue | O(1) | O(1) | O(1) | O(n) |
| ArrayBlockingQueue | O(1) | O(1) | O(1) | O(1) |
| LinkedBlockingQueue | O(1) | O(1) | O(1) | O(1) |
| PriorityBlockingQueue | O(log n) | O(1) | O(log n) | O(1) |
| DelayQueue | O(log n) | O(1) | O(log n) | O(1) |
| LinkedList | O(1) | O(1) | O(1) | O(1) |
| ArrayDeque | O(1) | O(1) | O(1) | O(1) |
| LinkedBlockingDeque | O(1) | O(1) | O(1) | O(1) |