

## Comparison of Map Interface

Hash Map [1]	Linked Hash Map [2]	Tree Map [3]	Hash Table [4]
clear() clone() containsKey(Object Key) containsValue(Object Value) entrySet() isEmpty() keySet() put(K Key, V Value) putAll(Map m) remove(Object Key) size() Collection Value()	Clean() containsValue(Object value) get(Object key) removeEldestEntry (Map Entry Eldest)	ceilingEntry(K key) ceilingKet(K key clear() clone() comparator() containsKey(Object key) containsValue(object value) desendingKeySet() desendingMap() entrySet() firstEntry() firstKey() floorEntry(K key) floorKey(K key) get(Object key) headMap(K toKey) headMap( K toKey, boolean inclusive) higherEntry(K key) higherKey( K key) keySet() lastEntry() lastKey() lowerEntry(K key) lowerKey(K key) navigableSet() pollFirstEntry() pollLastEntry() put(K key , V value) putAll(Map map) remove(Object key) size()	clear() clone() contains(Object value) containsKey ( Object key) containsValue (Object value) element() entrySet() equals(Object O) get(Object key hashCode() isEmpty() keys() keySet() put( K key, V value) putAll(Map m) rehash() remove(Object key) size() toString(0 Collection value()

Operation [5]	Hash Map	Linked Hash Map	Tree Map	Hash Table
Allow Null Key	One	One	Not Allow Null	Not Allow Null
Allow Null Value	Multiple	Multiple	Multiple	Not Allow Null
Based on	Key	Key	Key	Key
Contains	Unique	Unique	Unique	Unique
Sorted	No , Random	No , As Entry List	Yes	No
Performance	O(1)	O(1)	O(log (n))	O(N)

### **Reference:**

- [1] [https://www.tutorialspoint.com/java/util/java\\_util\\_hashmap.htm](https://www.tutorialspoint.com/java/util/java_util_hashmap.htm)
- [2] [https://www.tutorialspoint.com/java/util/java\\_util\\_linkedhashmap.htm](https://www.tutorialspoint.com/java/util/java_util_linkedhashmap.htm)
- [3] [https://www.tutorialspoint.com/java/util/java\\_util\\_treemap.htm](https://www.tutorialspoint.com/java/util/java_util_treemap.htm)
- [4] [https://www.tutorialspoint.com/java/util/java\\_util\\_hashtable.htm](https://www.tutorialspoint.com/java/util/java_util_hashtable.htm)
- [5] <https://stackoverflow.com/questions/2889777/difference-between-hashmap-linkedhashmap-and-treemap>