

Hash Table vs Hash Map



Hash Table



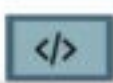
Hash table is the legacy class and was introduced before Hash map.

Hash Map



On the other hand, Hash Map is the advanced version of Hash Table and was introduced as a new class in JDK1.2

Hash Table



Hash Table is internally implemented in such a manner that no null key or null value is allowed.

Hash Map



Whereas Hash Map allows one null key and multiple null values.

Hash Table



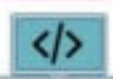
Hash Table is synchronized and thread-safe, hence can be shared with other threads.

Hash Map



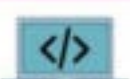
There is no synchronization implemented in Hash Map, also not thread-safe. So it can not be shared among other threads without perfect synchronization code.

Hash Table



Hash Table provides iterator as well as Enumerator to traverse values stored in it.

Hash Map



Hash Map provides an iterator for iteration/Traverse the values stored in it.

Hash Table



In Hash Table, due to synchronization, hash table slows down compared to Hash map but also eliminates extra coding.

Hash Map



As synchronization is absent, hash map is comparatively faster than hash table, preferable when there is no synchronization.

Hash Table



Hash Table inherits dictionary class.

Hash Map



Hash map inherits Abstract Map class.

Hash Table



Hash Table does not maintain mappings in any particular order.

Hash Map



Hash Map maintains insertion order and sorts mappings based on ascending key order.

Hash Table



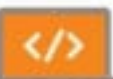
Hash Table is not a part of the collection framework. It was made part of collection framework member after implementing the Map interface.

Hash Map



Hash Map implements a map interface and is part of a collection framework since the start.

Hash Table



If there is a thread-safe operation to be used, Hash table can be used as all methods in it are synchronized.

Hash Map



Hash Map is used for multi-threaded environment, recommended to use Concurrent Hash Map.

Hash Table



Hash Table uses keys to implement hash code.

Hash Map



Hash Map is an advanced improvement on Hash Table.

Hash Table



Hash Table Efficiency is $O(1)$.

Hash Map



Hash Map Efficiency is $O(1)$.

Hash Table



Enumerator in Hash Table is not a fail fast and throws ConcurrentModificationException.

Hash Map



Iterator in Hash Map is fail fast Iterator.

Hash Table



Hash Table is preferred over Hash Map for multi-threaded applications. Oracle has provided with ConcurrentHashMap as a replacement for Hash Table.

Hash Map



Hash Map is preferred over Hash Table for nonthreaded applications