**Java HashMap class**

Java HashMap class implements the map interface by using a hashtable. It inherits AbstractMap class and implements Map interface.

The important points about Java HashMap class are:

* A HashMap contains values based on the key.
* It contains only unique elements.
* It may have one null key and multiple null values.
* It maintains no order.

**Hierarchy of HashMap class**

As shown in the above figure, HashMap class extends AbstractMap class and implements Map interface.

Java HashMap class hierarchy

**Difference between HashSet and HashMap**

HashSet contains only values whereas HashMap contains entry(key and value).

**HashMap class declaration**

Let's see the declaration for java.util.HashMap class.

1. public class HashMap<K,V> extends AbstractMap<K,V> implements Map<K,V>, Cloneable, Serializable

**HashMap class Parameters**

Let's see the Parameters for java.util.HashMap class.

* **K**: It is the type of keys maintained by this map.
* **V**: It is the type of mapped values.

**Constructors of Java HashMap class**

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| **Constructor** | **Description** |
| HashMap() | It is used to construct a default HashMap. |
| HashMap(Map m) | It is used to initializes the hash map by using the elements of the given Map object m. |
| HashMap(int capacity) | It is used to initializes the capacity of the hash map to the given integer value, capacity. |

**Methods of Java HashMap class**

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| **Method** | **Description** |
| void clear() | It is used to remove all of the mappings from this map. |
| boolean containsKey(Object key) | It is used to return true if this map contains a mapping for the specified key. |
| boolean containsValue(Object value) | It is used to return true if this map maps one or more keys to the specified value. |
| boolean isEmpty() | It is used to return true if this map contains no key-value mappings. |
| Object clone() | It is used to return a shallow copy of this HashMap instance: the keys and values themselves are not cloned. |
| Set entrySet() | It is used to return a collection view of the mappings contained in this map. |
| Set keySet() | It is used to return a set view of the keys contained in this map. |
| Object put(Object key, Object value) | It is used to associate the specified value with the specified key in this map. |
| int size() | It is used to return the number of key-value mappings in this map. |
| Collection values() | It is used to return a collection view of the values contained in this map. |