***Sets***

* *This stores Unique value(No duplicate),permits null elements*
* *Methods are same as collection class but no duplicate elements are allowed*

*There are two types of sets*

1. *Hash Set*
2. *Linked Hashset*
3. *Tree set*

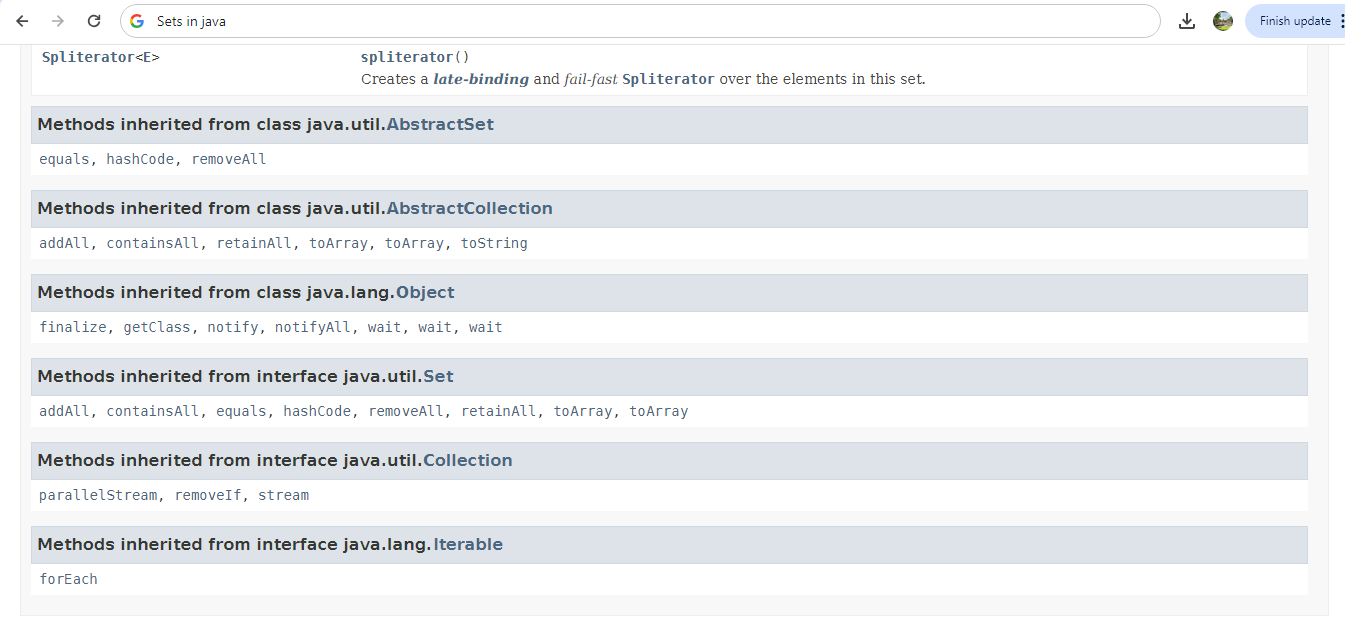
***Hash Set***

* *It mainly uses hashcode() and equals() implementation to avoid duplication of object value*
* *It implements internally hashtable*
* *Linkedlist maintains linkedlist along with hashtable. Hence methods for both remain same*

***Important Functions/Operations of Collection class***

|  |  |
| --- | --- |
| *Return Type* | **Methods** |
| boolean | [add](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html#add(E))([E](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html) e) |
| boolean | [addAll](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html#addAll(java.util.Collection))([Collection](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html)<? extends [E](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html)> c) |
| void | [clear](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html#clear())() |
| boolean | [contains](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html#contains(java.lang.Object))([Object](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html) o) |
| boolean | [containsAll](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html#containsAll(java.util.Collection))([Collection](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html)<?> c) |
| boolean | [equals](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html#equals(java.lang.Object))([Object](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html) o) |
| int | [isEmpty](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html#isEmpty())() |
| [Iterator](https://docs.oracle.com/javase/7/docs/api/java/util/Iterator.html)<[E](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html)> | [iterator](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html#iterator())() |
| boolean | [remove](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html#remove(java.lang.Object))([Object](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html) o) |
| boolean | [removeAll](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html#removeAll(java.util.Collection))([Collection](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html)<?> c) |
| boolean | [retainAll](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html#retainAll(java.util.Collection))([Collection](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html)<?> c) |
| int | [size](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html#size())() |
| [Object](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html)[] | [toArray](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html#toArray())() |
| <T> T[] | [toArray](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html#toArray(T[]))(T[] a) |

*Refer:* [*https://docs.oracle.com/javase/8/docs/api/java/util/HashSet.html*](https://docs.oracle.com/javase/8/docs/api/java/util/HashSet.html)

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