

⇒ Navigable Map :-

- It is the child interface of Sorted Map.
- It defines several methods for navigation purposes.

Map (I) 1.2 V

SortedMap (I) 1.2 V

NavigableMap (I) 1.6 V

TreeMap 1.2 V

⇒ Collection :-

- If we want to represent a group of individual objects as a single entity then we should go for collection.
- Collection interface defined the most common methods which are applicable for any collection object.
- ⇒ Methods available in collection interface :-

boolean add (Object o)

boolean addAll (Collection c)

boolean remove (Object o)

boolean removeAll (Collection c)

boolean retainAll (Collection c)

↳ To remove all objects except those present in c.

void clear ()

boolean contains (Object o)

boolean containsAll (Collection c)

boolean isEmpty ();

int size ()

Object[] toArray ()

Iterator iterator ()

NOTE :- There is no concrete class which implements Collection interface directly.

List :-

- List is child interface of collection.
- If we want to represent a group of individual objects as a single entity where duplicates are allowed and insertion order must be preserved then we should go for List.
- We can preserve insertion order via Indexed and we can differentiate duplicate objects by using index. Hence, Index will play very important role in List.
- List interface defines the following specific methods:-
 - ① void add(int index, Object o)
 - ② boolean ~~void~~ addAll(int index, Collection c)
 - ③ Object get(int index)
 - ④ Object remove(int index)
 - ⑤ Object set(int index, Object new)

↳ to replace the element presents at specified index with provided Object and returns old Object.

 - ⑥ int indexOf(Object o)

→ return index of first occurrence of 'o'.

 - ⑦ int lastIndexOf(Object o)

ListIterator listIterator();

⇒ ArrayList :-

- The underlined data structure is re-sizable array or growable array.
- Duplicates are allowed
- Insertion order is preserved.
- Heterogeneous objects are allowed. (except TreeSet & TreeMap)
- Null insertion is possible.

⇒ Constructors :-

① ArrayList l = new ArrayList();

→ create an empty ArrayList object with default initial capacity 10.