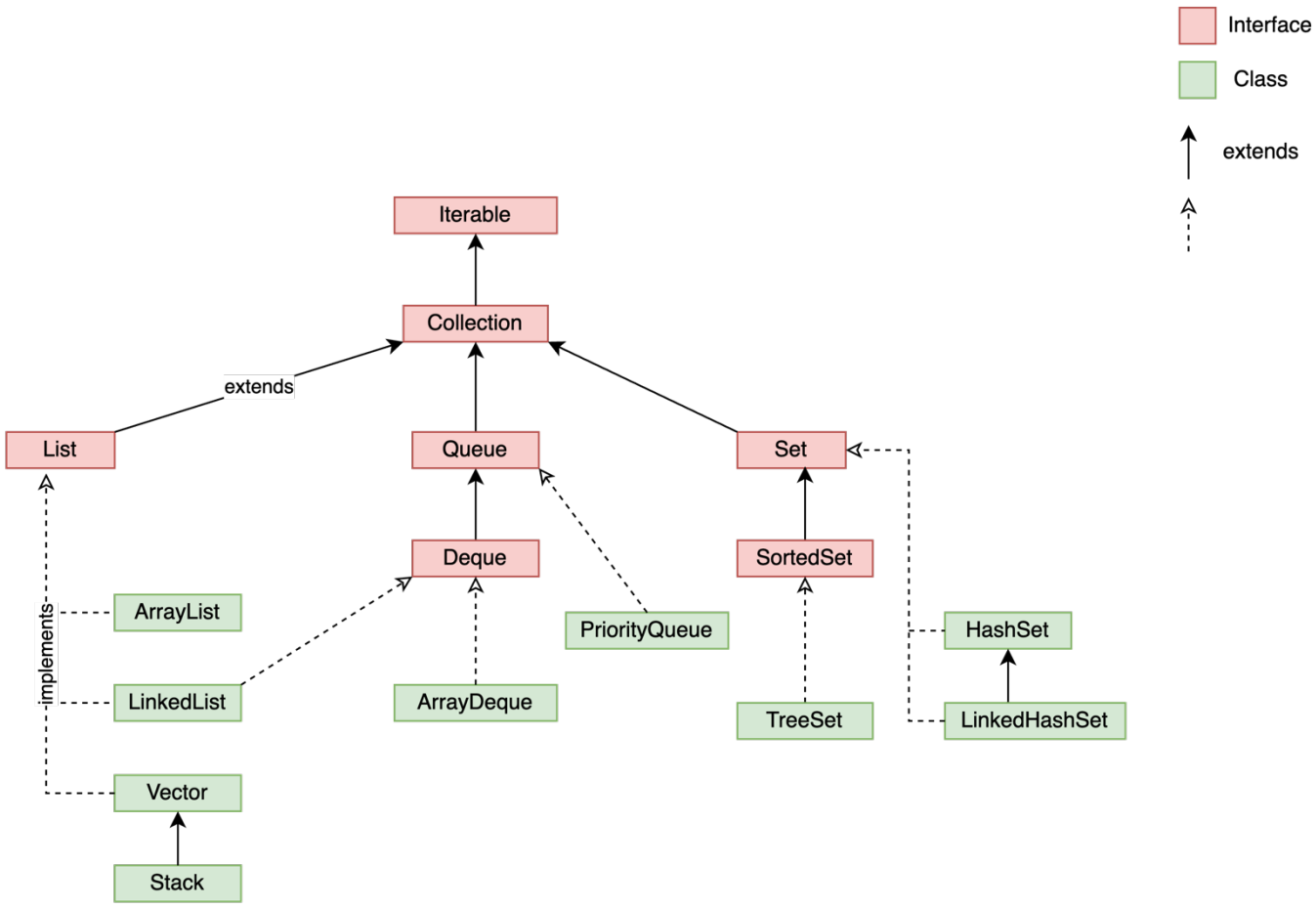


Collection

- A collection is an object that represents a group of objects.
- A list can contain duplicate elements whereas Set contains unique elements only.

List

- Insertion order is preserved.
- Duplicate and null values are allowed.

Set

- Insertion order is not preserved.
- Duplicate values are not allowed but it allows one null value.

ArrayList

- The memory location for the elements of an ArrayList is contiguous.
- ArrayList is better for storing and accessing/searching the data.
- Manipulation is a little bit slower than the LinkedList in Java because a lot of shifting needs to occur , if any elements removed from the array list.

LinkedList

- The location for the elements of a LinkedList is not contagious.
- Manipulation with LinkedList is faster than ArrayList because it uses doubly linked list to store elements, so no bit shifting is required in the memory.
- LinkedList class can act as list , stack or queue because it implements List and Deque interfaces.

HashSet

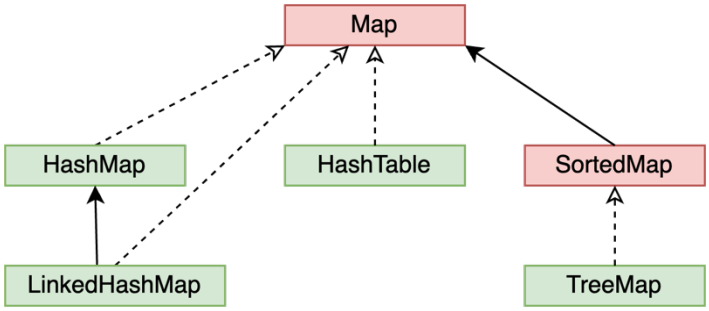
- HashSet stores the element by using mechanism called Hashing.
- HashSet is the best approach for search operation.

LinkedHashSet

- LinkedHashSet maintains insertion order.

TreeSet

- TreeSet class uses a tree for storage.
- TreeSet access and retrieval times are quiet fast.
- TreeSet doesn't allow null element.
- The objects of the TreeSet class are stored in ascending order hence maintains ascending order.



Map

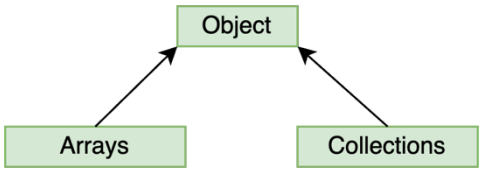
- Map is not a child of Collection Interface hence it has sperate hierarchy.
- Both key and value are objects.
- Each key and value pair is known as an entry.
- Duplicate keys are not allowed but values can be duplicate. May have one null key and multiple null values.
- Map is useful if you have to search, update or delete elements on the basis of a key.

HashMap

- Insertion order is not preserved.
- May have one null key and multiple null values.

HashTable

- HashTable class doesn't allow null key or value.



Arrays

- The Arrays class in is a part of the Java Collection Framework.
- This class provides static methods to dynamically create and access Java arrays.

Collections

- Collections class in Java is one of the utility classes in Java Collections Framework.
- Java Collections class is used with the static methods that operate on the collections or return the collection.
- All the methods of this class throw the NullPointerException if the collection or object passed to the methods is null.

Note: We cannot create list or map with the primitive types such as int, float, char, etc. It is required to use the required wrapper class in such cases.