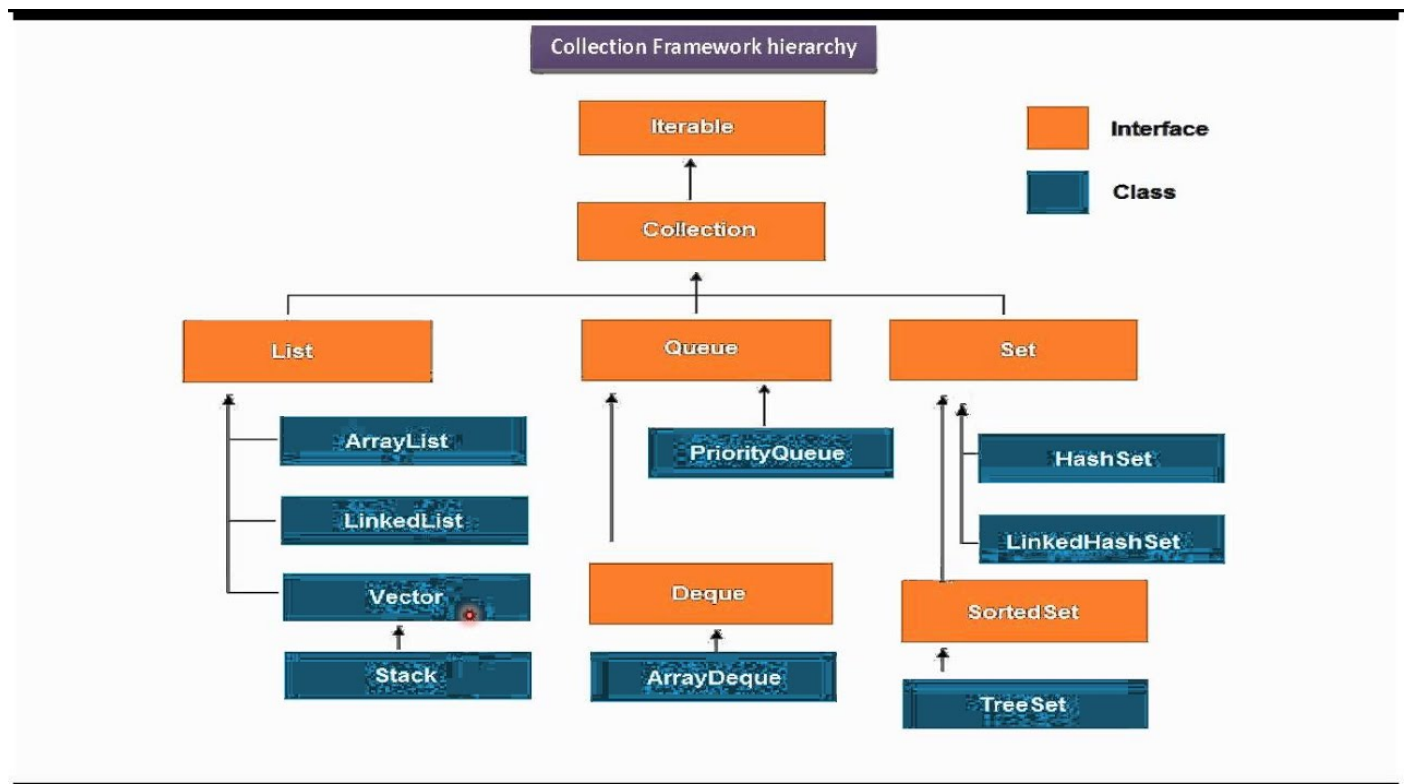


## Collection Interface

- Interface from java.util
- Implemented by List, Set, and Queue, which are also interfaces
- *Collections* is a class of exclusively static methods for operating on or returning objects that implement the Collection interface.
- Collection - > interface
- Collections - > class
- Refer to the diagram to discern classes from interfaces within the Collection Hierarchy



	ArrayList	Vector	LinkedList	HashMap	LinkedHashMap	HashTable	TreeMap	HashSet	LinkedHashSet	TreeSet
Allows Null?	Yes	Yes	Yes	Yes (But One Key & Multiple Values)	Yes (But One Key & Multiple Values)	No	Yes (But Zero Key & Multiple Values)	Yes	Yes	No
Allows Duplicates?	Yes	Yes	Yes	No	No	No	No	No	No	No
Retrieves Sorted Results?	No	No	No	No	No	No	Yes	No	No	Yes
Retrieves Same as Insertion Order?	Yes	Yes	Yes	No	Yes	No	No	No	Yes	No
Synchronized?	No	Yes	No	No	No	Yes	No	No	No	No

## Wrapper classes

- Class versions of primitive Java data types
- Integer, Byte, Short, Long, etc.
- necessary for including primitive data types in Collection hierarchy entities

## Compile-Time Versus Run-Time

