Collection Framework

Collection

List Set Queue

ArrayList LinkedList Vector HashSet SortedSet PQ BQ

Stack LinkedHashSet NavigableSet PBQ LBQ

TreeSet

Map

HashMap WeakHashMap IdentityHashMap HashTable SortedMap

LinkedHashMap Properties NavigableMap

TreeMap

Interface

Class

Collection Framework:-

The collections Framework provides a well designed set of interfaces and classes for storing and manipulating groups of data as a single unit, a Collection.

Collection Framework contains the following:-

* Interface:

These are abstract data types that represent collections

* Implementation (Classes):-

These are the concrete implementations of the collection interface

* Algorithm:-

These are the methods that perform useful computations, such as searching and sorting, on objects that implement Collection interfaces.

Advantage of Collection Framework:-

1. Represent group of values as a single entity.
2. Size expandable
3. Store Homogeneous & Heterogeneous Data
4. Have classes ----------🡪 Abstract Data types

Interfaces in Collection Framework:-

* Collection:-
* For group of objects
* List :-
* Duplicates allowed
* Insertion order must be preserved
* ArrayList, LinkedList, Vector are the implementation classes
* Stack extends the Vector class
* Set:-
* A collection that can not contain duplicate elements.
* Insertion order is not preserved
* HashSet, LinkedHashSet are the classes implemented set interface
* Queue
* Child interface of Collection
* priorityQueue, BlockingQueue, LinkedBlockingQueue, PriorityBlockingQueue