Collection Framework
Collection represent group of object, it provide classes and interface for us to able to write code quickly and efficiently
- It is ready made framework used to store collection of data (huge data) of unique type as single entity
- It makes use of container to store unique data
- So the data can be stored, modified and manipulated
- It is advance structure of array i.e. it built on architecture of array
- It remove drawback of array

Array : fixed size, can hold homogenous, no underlined data structure so no ready-made method like contains

Collection :- growable in nature, can hold homogenous and heterogenous objects, based on standard data structure so ready-made support is available

If we know the size in advance then used array

Drawback of Collection :- performance issue
If we need to add one extra object and then new collection object is created with bigger in size and all element copied to new object so performance down when thousands of object are present

Collection and Collections

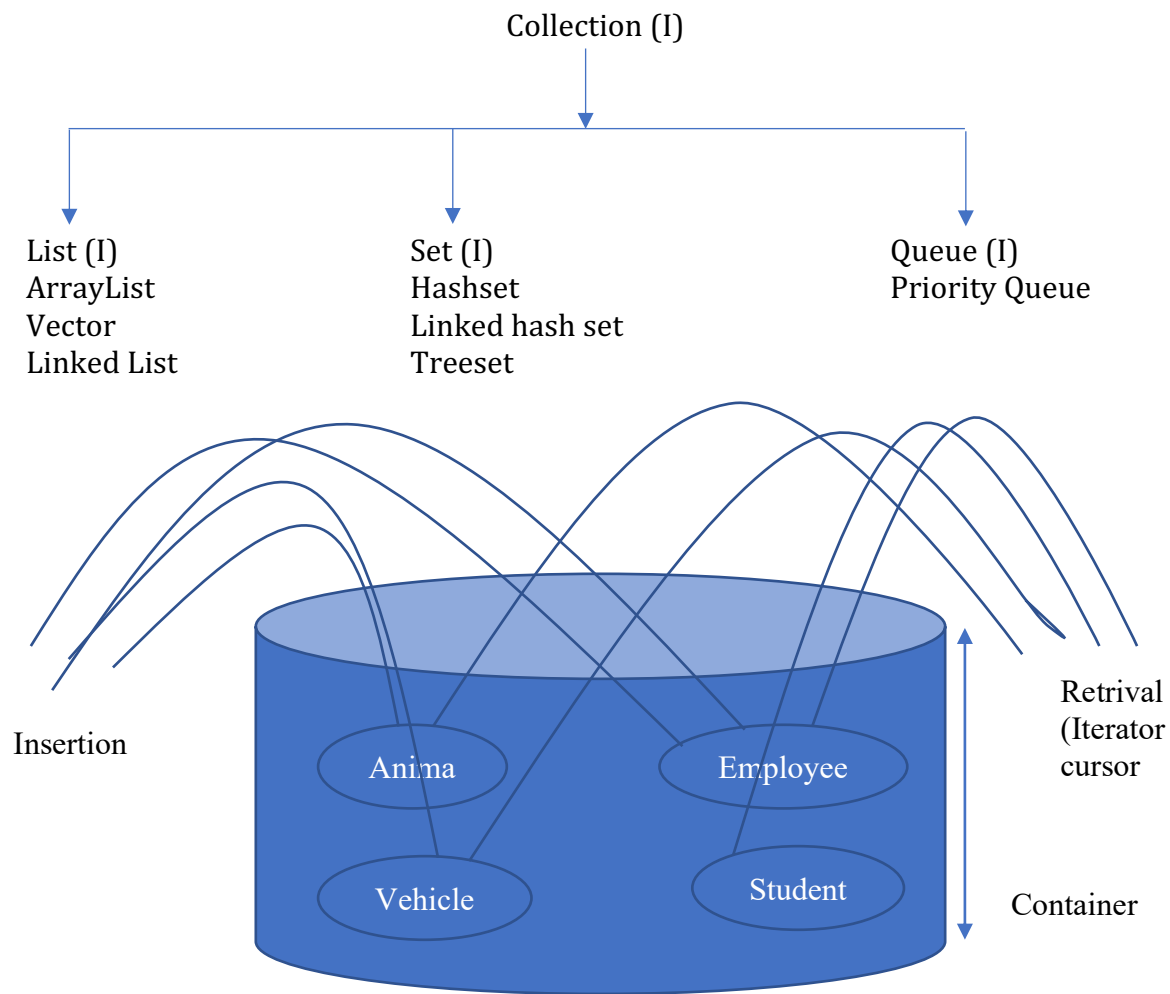| Collection	Collections
Interface	Utility class to define method like search, sort

Need :- We need collection for efficient storage and better manipulation for data in java. For example we use array to store integer but what if we want to
- Resize the array
- Insert an element in between
- Delete an element in array
- Apply certain operation to change this array

If we have an array and now we need to delete the element in between the array then after delete next element we need to shift all elements.

3	7	12	15	34	56	57	78
[0]	[1]	[2]	[3]	[4]	[5]	[6]	[7]

Collections.sort(al1);

Collection (I)

List (I)
ArrayList
Vector
Linked List

Set (I)
Hashset
Linked hash set
Treeset

Queue (I)
Priority Queue

Insertion

Anima

Vehicle

Employee

Student

Retrival
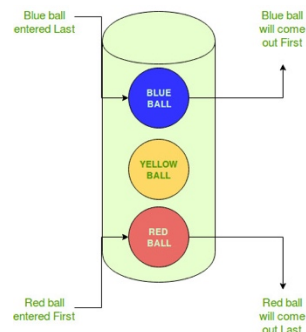(Iterator
cursor

Container

Collection in java are available as classes and interface, following are the few commonly used collection in java:

ArrayList :- for variable size collection

Set :- for distinct collection (no duplicate value)

Stack :- A LIFO data structure

Hashmap :- for storing key-value pairs

Collections provide static method for sorting, searching etc.

ArrayList :- modified array, resize, insert element, insert element by index

It resize itself automatically as per need
While inserting/deleting an element in array list, we need to shift all elements