Wrapper classes:

* It is used to convert primitive data types to Objects and objects to primitive data types.
* Serialization is uses object data.
* Collections.

Primitive data types: Object types:

byte Byte

short Short

char Character

int Integer

long Long

float Float

double Double

boolean Boolean

java 1.5V it is introduced.

Autoboxing

It will convert primitive data types to objects

unboxing:

it will convert objects to primitive types

Collections:

* It is growable nature.

List 🡺 Interface

* It will accept duplicate.
* It will null values.
* It is insertion order.
* Implementation classes are

1. ArrayList

* Whenever fetching the data it is best choice 🡺Random Access Interface
* Whenever data manipulation arraylist is worst choice
* By default size is 10.
* Load factor is 0.75 or 75%
* New capacity = current capacity\*3/2 +1 🡺 10\*3/2 +1🡺 16
* Asynchronous

1,2,3,4,5,6,7,8,9,10

1. LinkedList:

* Whenever fetching the data it is worst.
* Whenever data manipulation arraylist is best choice.
* It internally works doubly linked list.

1. Vector:

* Whenever fetching the data it is best choice 🡺Random Access Interface
* Whenever data manipulation arraylist is worst choice
* By default size is 10.
* Load factor is 0.75 or 75%
* New capacity = 2\*current capacity🡺 2\*10 = 20
* synchronous

Set 🡺 interface

* Set wont accept duplicates
* It wont allow null values
* It is not an insertion by default
* Search functionality
* Implementation classes are

1. HashSet

* Here data is random order.
* Whatever the data adding in Hashset it will store Hashmap keys

1. LinkedHashSet:

* Insertion order.

1. TreeSet

* Sorting order/ ascending order.

Map🡺 Interface

* Key value pairs data
* Key can be integer, String, objects etc and value also can be any data type.
* Keys are unique and wont allow duplicates
* Keys will allow only 1 null key
* Values can be null and duplicates
* Asynchronous
* Implementation classes are

1. HashMap

* It is random order
* By default size is 16
* Each index is called bucket 🡺 each index is a linkedlist

1. LinkedHashMap

* Insertion order

1. TreeMap

* sorting order/ ascending order.

Concurrent HashMap 🡺 Adding, deleting is synchronous

Get operations is Asynchronous

Null key value not allowed

HashTable:

* default size is 16,
* it is synchronous.
* It wont allow null keys and null values.

HashTable 🡺 HashMap 🡺 concurrentHashMap