

Method Overloading

Collection

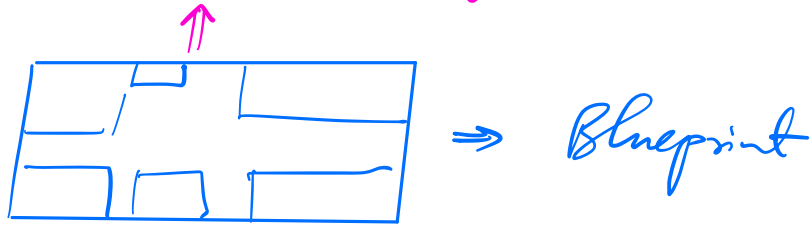
- 1) JCF (Java Collection Framework)
- 2) Interface
- 3) Collection Interface
- 4) \downarrow Interfaces that extends the collection interface
- 5) Comparable
- 6) Comparator.

JCF

- 1) Collection of objects is a group of ^{individual} objects represented as a single unit.
- 2) Framework is a set of classes & interface which provide a ready made architecture.

Interfaces

Kitchen, Dining, Rooms, Washrooms, Living



↓
Real Flat

I Vehicle

- drive()
- brake()
- horn()

I Two Wheeler

- deployStand()
- closeStand()

I Four Wheeler

- playMusic();
- turnONAC();
- turnOFFAC();

HWD

LMV

—

Advantages

Arrays
add
arr[0]

Vectors
- add elements
v. elementAt(0)

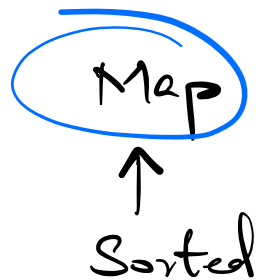
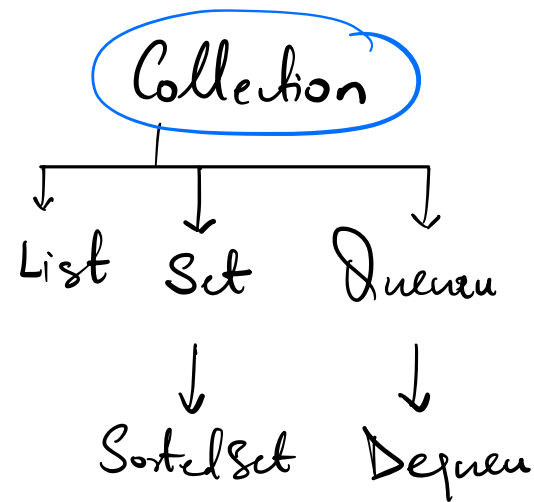
HashTable
put

1) consistent API

Hierarchy ↙ JCF
java.util

Collection.) different
collections.

interface
iterator for all
objects
↑
Iterable



Collection interface ⇒ extend Iterable interface.

- add()
- size()
- remove()

- iterator()
 - addAll()
 - removeAll
 - clear()
-

Interfaces extends Collection

- 1) List (Duplicates elements)
 - 2) Set
 - 3) SortedSet extends Set
 - 4) Map (Not collection)
 - 5) Queue
 - 6) Dequeue extends Queue
-

List Interface

Child interface of Collection

Classes that implements List

- 1) ArrayList \Rightarrow Resizable array implementation
- 2) Vector \Rightarrow Synchronized.
- 3) Stack \Rightarrow subclass of vector (LIFO)
- 4) linked list \Rightarrow List & Deque

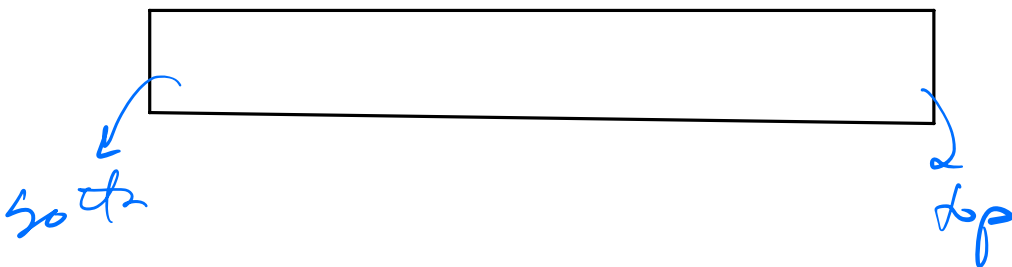
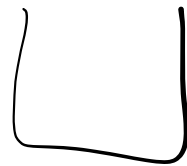
vector

add() ^{end} \rightarrow element \rightarrow Overloading
remove() ^{index} \rightarrow add(index, element)

2

stack extends vector &

② Override
add()



Set Interface

Classes that implement

1) HashSet

2) LinkedHashSet

↳ Ordered (insertion order)

Sorted Set extends Set

TreeSet (Balanced BST)

↓
 $O(\log N)$

Map Interface

Map
HashMap
LinkedHashMap

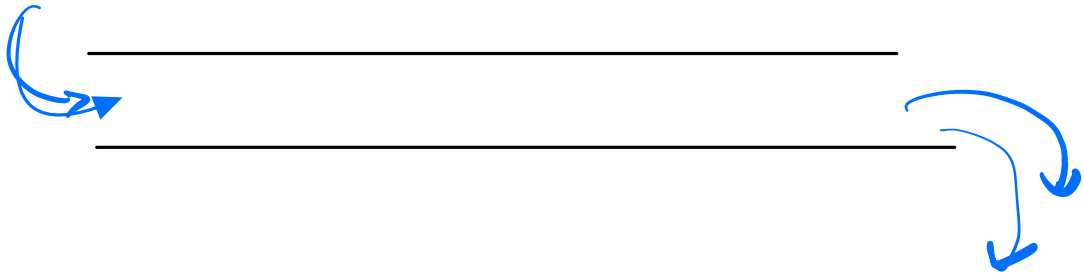
T.C. = $O(1)$

SortedMap extends Map
TreeMap.

T.C. = $O(\log N)$

Queue Interface

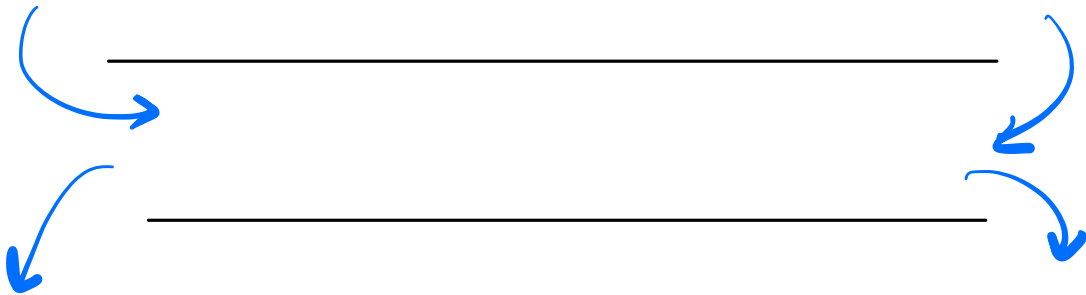
fifo



Class

Priority Queue

Deque Interface extends Queue



- 1) Array Deque
- 2) Linked List

Monday → Comparable & Comparator

TODO: Read

- 1) Generic
- 2) Language Specific Doc

25th to 2nd Jan

↳ 27
29 } ~~Replicat~~

(Revision of Maths)