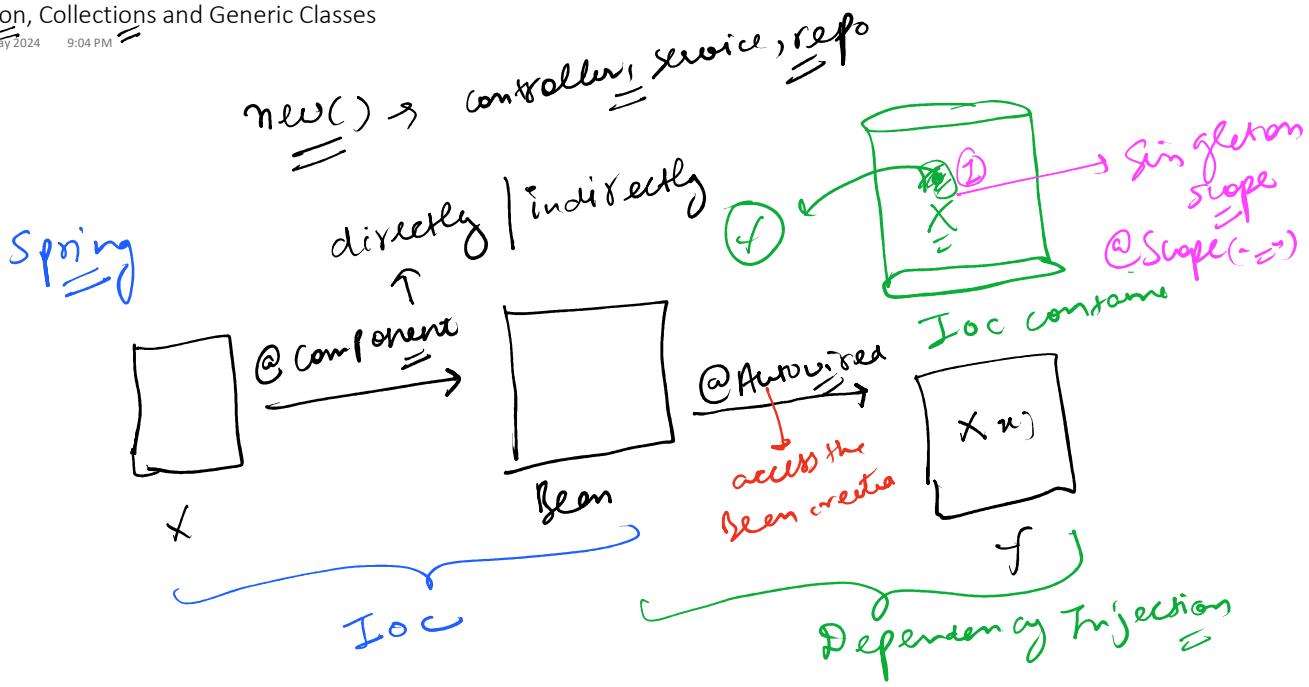
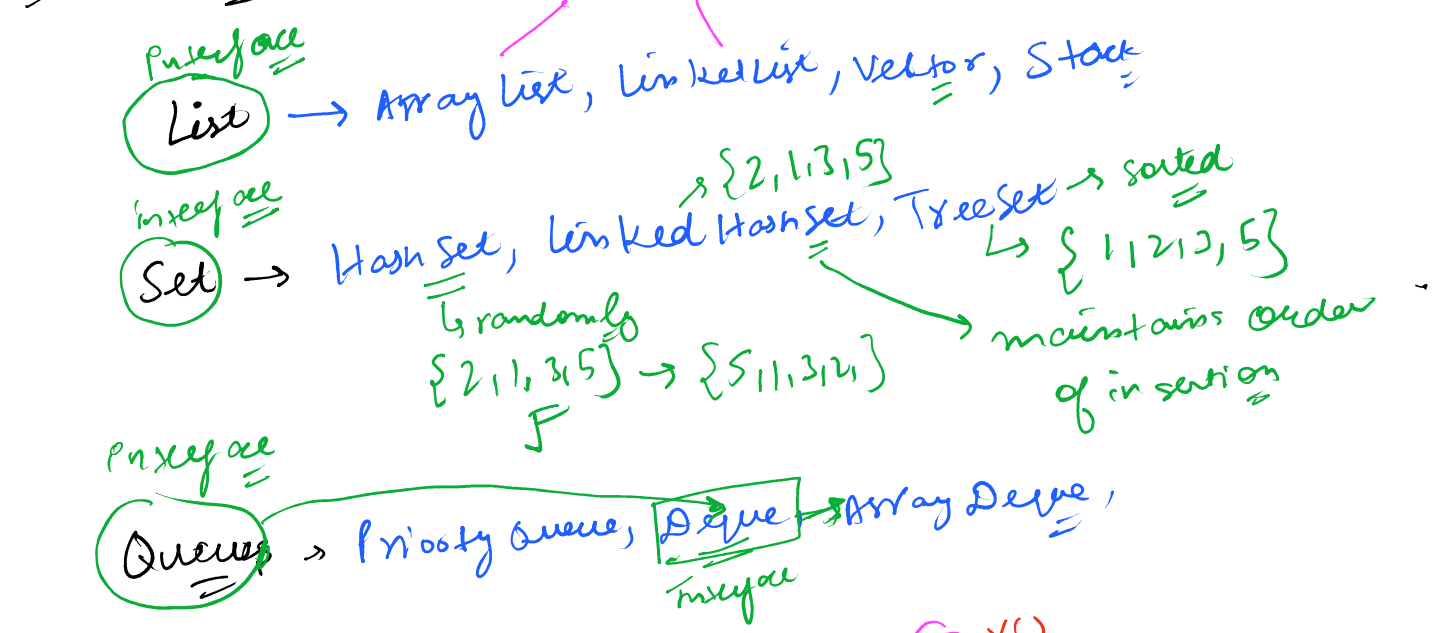
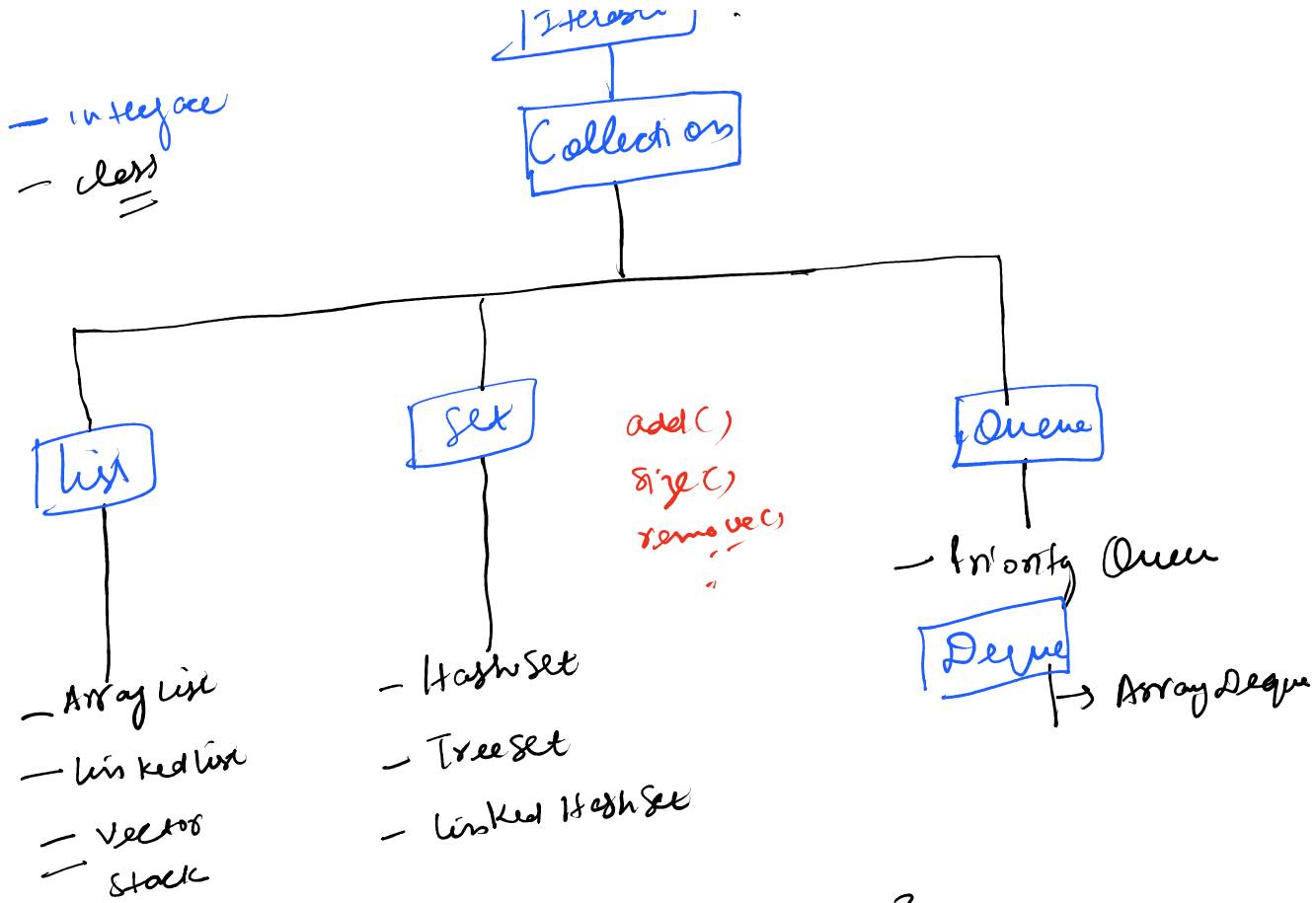
Collection, Collections and Generic Classes

Tuesday, 21 May 2024 9:04 PM



Collection





— interface
— class

Why map is not a part of Collection?

Map → Interface

HashMap, TreeMap, LinkedHashMap

HashMap → keys in random order

TreeMap → Sorted

LinkedHashMap → maintains order of insertions

#

List<Integer> l = new ArrayList<>();

ArrayList<Integer> l = new ArrayList<>();

only those methods that are present in List interface

trimToSize()

1) Only in (1)
2) Only in (2)
3) Both of them
4) None of them

④ None of these
⑤ Waiting for the instructor

Parent p = new Child()
↳ we can access only the methods present in Parent.

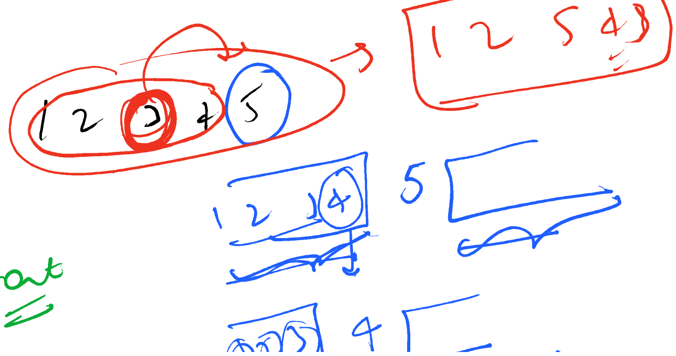
Collections → class

↳ Collections.sort (m)

→ Contains methods to operate on Data structure & static

Collections.sort();
Collections.min();
.max()
.reverse();

→ Complexity of Quick Sort
→ $O(n \log n)$ avg
→ $O(n^2)$] input is already



→ Randomized Quicksort

Quick sort

$O(n^2)$ 4

$n \times n \Rightarrow O(n^2)$

Generic Classes

↓ general

ArrayList<Intv> {

<Double>

<Person>

<Emp>

<msg>

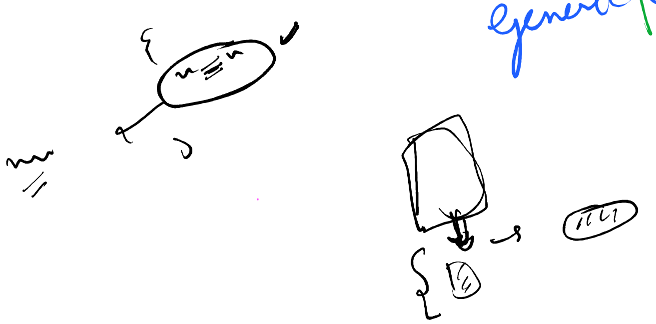
< ___ >

int → primitive

Integer

ArrayList<E>

Generic Class



ArrayList<...>