Collection in Java

* Collection API is used to collect group of Objects.
* java.util package is used to implement collection.
* It implements many data structure like Set, List, Stack, Queue etc .. in Java.
* <E> represents Generic Type.it can be anything like String,Integer Float, Double etc (We pass Wrapper class in E).
  + int 🡪 Primitive data type
  + Integer 🡪 Wrapper Class
  + float 🡪 Primitive data type
  + Float 🡪Wrapper class
  + double 🡪 Primitive data type
  + Double 🡪 Wrapper class
* In Stack ,index 0 start from right going in -ve from right to left i.e. 0🡪-1 🡪 -2 🡪 -3 🡪 -4

17

16

15

14

13

12

1

Index🡪

0

-1-------

-2-------

-3-------

-4-------

-5-------

-6-------

-7-------

* First In Last Out
* javap java.util.Stack
* public boolean empty(); // check if stack is empty or not
  + [12, 13, 13, 16, 17]
* Index: 5 4 3 2 1

Queue Implementation:

* First In First Out (FIFO)
* javap java.util.Queue
* To Traverse in List, Stack or Queue or any data structure we use iterator Interface (to visit items inside these).
* java.util.Iterator
  + hasNext 🡪 condition
  + next() 🡪 Access the item
* Iterator VS iterator : One is Interface another is method (smallcase).

Set:

* No Duplicate Entries allowed
* javap java.util.Set

Linked List Implementation:

* class
* javap java.util.LinkedList

Sorting in Collection(M.imp):

* Collection 🡪 Interface
* Collections 🡪 Class\

Sorting through Comparable Interface (M.imp):

* java.lang.comparable
* javap java.util.Comparator
* E : element
* T : Type