ArrayDeque

Usually pronounced as deck, a deque is a double-ended-queue. A double-ended-queue is a linear collection of elements that supports the insertion and removal of elements at both end points. The Deque interface is a richer abstract data type than both Stack and Queue because it implements both stacks and queues at the same time. The Deque interface, defines methods to access the elements at both ends of the Deque instance. Methods are provided to insert, remove, and examine the elements. Predefined classes like ArrayDeque and LinkedList implement the Deque interface.

Array – is storing for the elements.

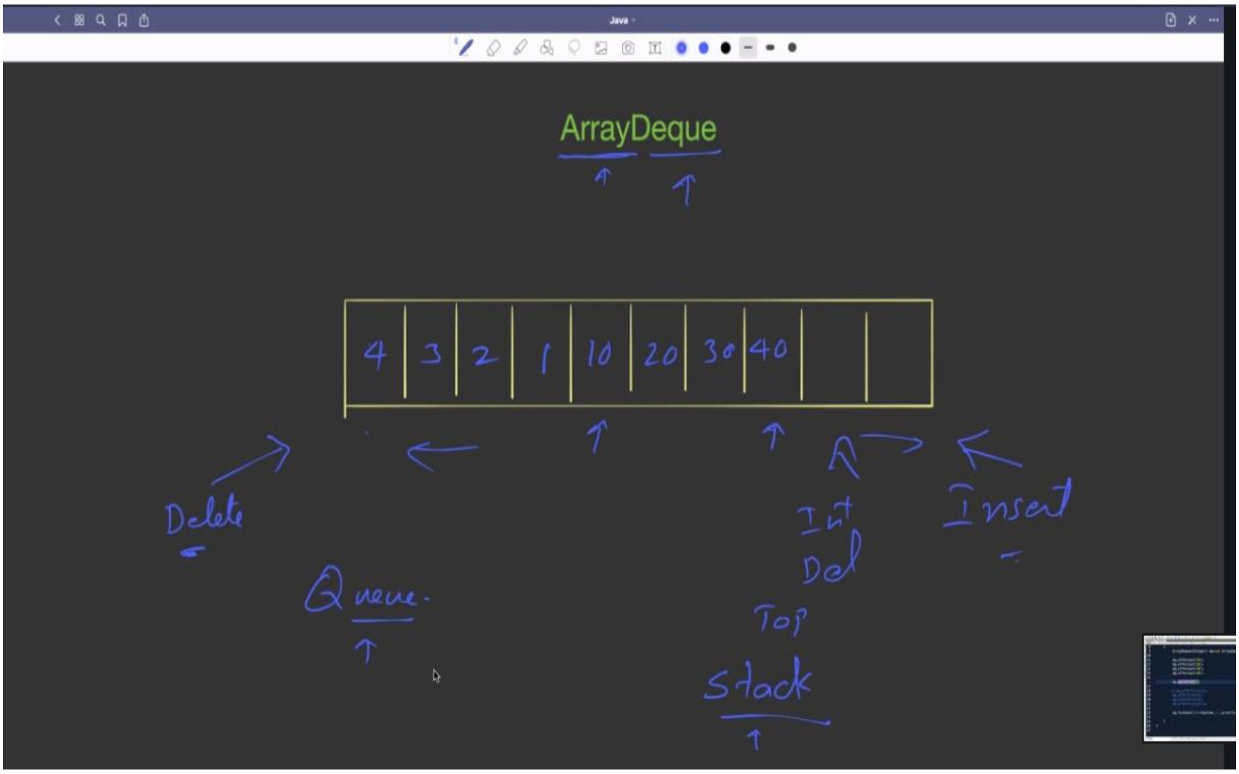
Deque- elements can be inserted and deleted.

Queue- It is an ordered list of objects with its use limited to insert elements at the end of the list and deleting elements from the start of the list, (i.e.), it follows the FIFO or the First-In-First-Out principle

Stack – The **stack** is a linear data structure that is used to store the collection of objects. It is based on **Last-In-First-Out** (LIFO). The stack data structure has the two most important operations that are **push** and **pop**. The push operation inserts an element into the stack and pop operation removes an element from the top of the stack.

```
dq.offerLast(10);
dq.offerLast(20);
dq.offerLast(30);
dq.offerLast(40);

dq.offerFirst(1);
dq.offerFirst(2);
dq.offerFirst(3);
dq.offerFirst(4);
```



Java
ArrayDeque
4
3
2
1
10
20
30
40
Delete
Queue.
Ins
Del
Top
Stack
Insert