

* Stack :- Stack is a LIFO data structure. Item added last can be the first to take out. In stack the element only insert and delete from last. pop() , PEEK() and push()

→ Peek is also called top.

→ Pop() will delete item from last.

→ Peek will give us last or top item.

→ Push will insert item at end.

* Queue :- It is FIFO data structure. The item that's inserted first will be taken out first.

→ Anything added into queue is done at ~~the~~ last from the last and removing can be done from the first.

→ deque : To remove item from ^{First.} queue

→ enqueue : To insert item at the last.

→ peek : Return first item.

- * FIFO is implement using Array and Linked List.
- * For Stack we use array and for queue we use linked list.
- * Operation-wise complexity (Stack).
 - Delete/Pop → $O(1)$
 - Insert/Push → $O(1)$.
 - Access/Peek → $O(1)$.
- * Operation-wise complexity (Queue).
 - Dequeue (delete) → $O(n)$ because we are shifting all item after
 - Enqueue (Insert) → $O(1)$
 - Peek (Access) → $O(1)$
- * Performing Queue with linked list will improve complexity.

Dequeue → $O(1)$

Enqueue → $O(1)$

Peek → $O(1)$..