
Queues

Exercises

1- Given an integer K and a queue of integers, write code to reverse the order of the first K elements of the queue.

Input: Q = [10, 20, 30, 40, 50], K = 3

Output: Q = [30, 20, 10, 40, 50]

Solution: QueueReverser.reverse()

2- Build a queue using a linked list from scratch. Implement the following operations and calculate their runtime complexities.

- enqueue
- dequeue
- peek
- size
- isEmpty

Solution: LinkedListQueue

3- Build a stack using two queues. Implement the following operations and calculate their runtime complexities.

- push

- pop
- peek
- size
- isEmpty

Solution: StackWithTwoQueues