

1. Given an integer k and a queue of integers, we need to reverse the order of the first k elements of the queue, leaving the other elements in the same relative order. Implement this program dynamically and only following standard operations are allowed on queue.

- a. `enqueue(x)` : Add an item x to rear of queue
- b. `dequeue()` : Remove an item from front of queue
- c. `size()` : Returns number of elements in queue.
- d. `front()` : Finds front item

Input : $Q = [10, 20, 30, 40, 50, 60, 70, 80, 90, 100]$, $k = 5$

Output : $Q = [50, 40, 30, 20, 10, 60, 70, 80, 90, 100]$

2. There are N numbers of the balls in the box. The colours of the balls are red and blue. You are requested to stack the balls in the bottom sealed basket one by one. The order of placing the balls is two consecutive red balls followed by the two consecutive blue balls. Later, create two empty queues $Q1$ and $Q2$. Remove the last inserted ball from the basket and place it in $Q1$. Similarly remove the next ball from the basket and insert in $Q2$. Develop a program to repeat this process until the basket is empty and also print the colour of the balls in the both queues.