

### **1. Interleave the first half of the queue with second half**

Given a queue of integers of even length, rearrange the elements by interleaving the first half of the queue with the second half of the queue. You can use only one stack can be used as an additional space.

Examples:    Input : 1 2 3 4

              Output : 1 3 2 4

Input : 11 12 13 14 15 16 17 18 19 20

Output : 11 16 12 17 13 18 14 19 15 20

### **2. Permutations of string of length n**

### **3. Generate Binary numbers from 1 to n using a Queue**

### **4. Sort a Queue ( Either recursion or iteration or Both)**