Lab Assignment 5
Queues

1. Develop a menu driven program demonstrating the following operations on simple Queues: enqueue(), dequeue(), isEmpty(), isFull(), display(), and peek().

   Note: Use either arrays or linked list to implement queue.

2. Develop a menu driven program demonstrating the following operations on Circular Queues: enqueue(), dequeue(), isEmpty(), isFull(), display(), and peek().

   Note: Use arrays to implement circular queue.

3. Write a program interleave the first half of the queue with second half.

   https://www.geeksforgeeks.org/interleave-first-half-queue-second-half/

4. Write a program to find first non-repeating character in a string using Queue.

   https://www.geeksforgeeks.org/queue-based-approach-for-first-non-repeating-character-in-a-stream/

Additional Questions:

- https://www.geeksforgeeks.org/interesting-method-generate-binary-numbers-1-n/
- https://www.geeksforgeeks.org/sorting-queue-without-extra-space/
- https://www.geeksforgeeks.org/program-page-replacement-algorithms-set-2-fifo/
- https://www.geeksforgeeks.org/lru-cache-implementation/