

Lab 6 Tasks

Q1. Given an array of distinct integers, print the longest subarray which contains numbers arranged in a continuous sequence.

Input:	Output:
10 1 56 58 57 90 92 94 93 91 45	90 91 92 93 94

Q2. Create a linked list with n elements where the elements contain an integer variable. Now rotate the linked list to the right by k places where k is an integer taken as input from the user.

For example:

Given 1->2->3->4->5->NULL and $k = 2$,
return 4->5->1->2->3->NULL.

Q3. Given two integer arrays arr1 and arr2 print the median of all the numbers in the two arrays. You cannot declare any other array.

Input:	Output:
5 5 9 10 8 2 7 3 12 7 3 10 8 9	8

Q4. Given a $n \times n$ maze, the starting position in the maze and the finishing position in the maze you will have to print whether it is possible to travel from the starting position to the finishing position. The values at each position in the maze will be either 0 or 1. You can move to positions with value 1, but not to the positions with value 0.

Input:	Input:
6 0 0 0 0 0 0 0 0 0 0 1 0 0 0 1 1 1 0 0 0 1 0 0 0 0 0 1 1 1 0 0 0 0 0 0 0 Start: 4 4 Finish: 1 4	10 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 1 0 0 1 1 1 1 1 1 1 0 0 1 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 1 0 0 1 1 1 1 1 1 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Start: 1 1 Finish: 8 1
Output:	Output:
Possible	Possible

Input:	Input:
10	10
0000000000	0000000000
0111111110	0111111110
0000000010	0111111110
0111111110	0111111110
0100000000	0001111000
0111111110	0001111000
0000000000	0001111000
0111111110	0111111110
0100000000	0111111110
0000000000	0000000000
Start: 1 1	Start: 1 1
Finish: 8 1	Finish: 8 8
Output:	Output:
Impossible	Possible