

# Popular Interview Questions

September 29|Harsh Sagar Garg

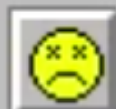
# 1. Flood Fill Algorithm

Flood fill is an algorithm mainly used to determine a bounded area connected to a given node in a multi-dimensional array

# Applications

- Paint Tool
- Minesweeper  
(Video)

- Solving Maze



# Implementations

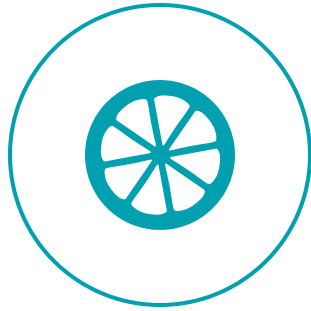


Implement using Rec



Using Queue

# Popular Questions



Rotten Oranges



Knight Shortest Path

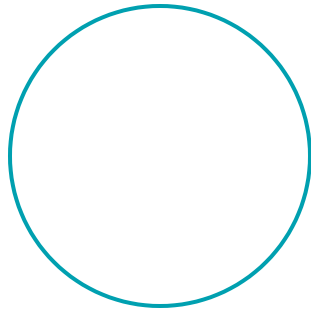
# LONGEST COMMON SUBSEQUENCE

Given two string sequences, write an algorithm to find the length of longest subsequence present in both of them.

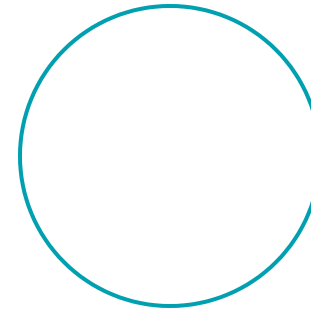
**Sort a Linked List of 0s,1s and 2s**



# Ways to solve



By counting occurrences of 0s and 1s



By moving nodes to front and end of  
list

# XOR LIST

Memory efficient List that does the work of Doubly Linked list by just storing 1 ptr per node

# Generate Binary Numbers from 1 to N

Using QUEUES

# One Edit Away

There are three types of edits that can be performed on strings: insert a character, remove a character, or replace a character. Given two strings, write a function to check if they are one edit (or zero edits) away. EXAMPLE yesterday, esterday -> true

# Algorithm - One Edit Away

**$l1$ -length of 1st string,  $l2$ - length of 2nd string**

- Length of strings is equal: REPLACE should be the edit
- $l1 < l2$ : Insert in  $l1$  can be the option
- $l2 < l1$ : removal from  $l1$  can be the option

**Write an algorithm such that if an element in an  $M \times N$  matrix is 0, its entire row and column are set to 0.**

**Print Just Smaller and Just Bigger Numbers having  
the same number of setbits**