

Flood fill Algorithm

An `image` is represented by a 2-D array of integers, each integer representing the pixel value of the image.

Given a coordinate `(sr, sc)` representing the starting pixel (row and column) of the flood fill, and a pixel value `newColor`, "flood fill" the image.

To perform a "**flood fill**", consider the starting pixel, plus any pixels connected 4-directionally to the starting pixel of the **same color** as the starting pixel, plus any pixels connected 4-directionally to those pixels (also with the **same color** as the starting pixel), and so on. Replace the color of all of the aforementioned pixels with the `newColor`.

Example 1:

Input: `image = {{1,1,1},{1,1,0},{1,0,1}},`
`sr = 1, sc = 1, newColor = 2.`

Output: `{{2,2,2},{2,2,0},{2,0,1}}`

Explanation: From the center of the image (with position `(sr, sc) = (1, 1)`), all pixels connected by a path of the same color as the starting pixel are colored with the new color. Note the bottom corner is not colored 2, because it is not 4-directionally connected to the starting pixel.

Your Task:

You don't need to read or print anything. Your task is to complete the function **floodFill()** which takes `image`, `sr`, `sc` and `newColor` as input parameter and returns the image after flood filling.

Expected Time Complexity: $O(n*m)$

Expected Space Complexity: $O(n*m)$

Constraints:

$1 \leq n \leq m \leq 100$

$0 \leq \text{pixel values} \leq 10$

$0 \leq sr \leq (n-1)$

$0 \leq sc \leq (m-1)$