

## Note on Region Finder class

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### Introduction:

The Region Finder class aims to find the regions that match the intended paintbrush target color and pick the largest region available before going on to using it as a paintbrush with a specific color to paint a canvas.

### Variables and objects used:

Name	Type	Utility
image	BufferedImage	Image captured to identify the target regions
visited	BufferedImage	Image used to check if pixels have already been visited
recoloredImage	BufferedImage	Image to show which regions with target colors have been identified.
regions	ArrayList of ArrayList	An ArrayList of regions with the corresponding points
p	Point	Getting the respective x and y points
neighbors	Queue<Point>	Queue to store the neighbors
largestRegionSize	int	To find the largest region with the target color
col	Color	To store a random color
i,j,x,y	int	Nested for loop containers

After setting the image, the finRegions() function runs through the image to check for matching colors and then calls the flood fill function if the condition is satisfactory. The flood fill function uses a Breadth First Search approach if the color matches.