PROGRAM – 13

AIM:

To do a python program to analyze an image using Histogram

ALGORITHM:

1. **Import modules:** Import cv2 as cv and matplotlib.pyplot as pl.
2. **Define function:** Create a function show\_hist(p) that takes the image path.
3. **Read image:** Load the image using cv.imread(p).
4. **Check image:** If the image is not loaded (None), print an error message and exit.
5. **Plot histograms:**
   * Loop through each color channel index (0, 1, 2) and corresponding label ('b', 'g', 'r').
   * Use cv.calcHist() to compute the histogram for each channel.
   * Plot the histogram using pl.plot(), set color and label accordingly.
6. **Customize plot:** Set title, axis labels, grid, and legend.
7. **Display plot:** Show the histogram plot using pl.show().

OUTPUT:

