BBM 418 ASSIGNMENT 2

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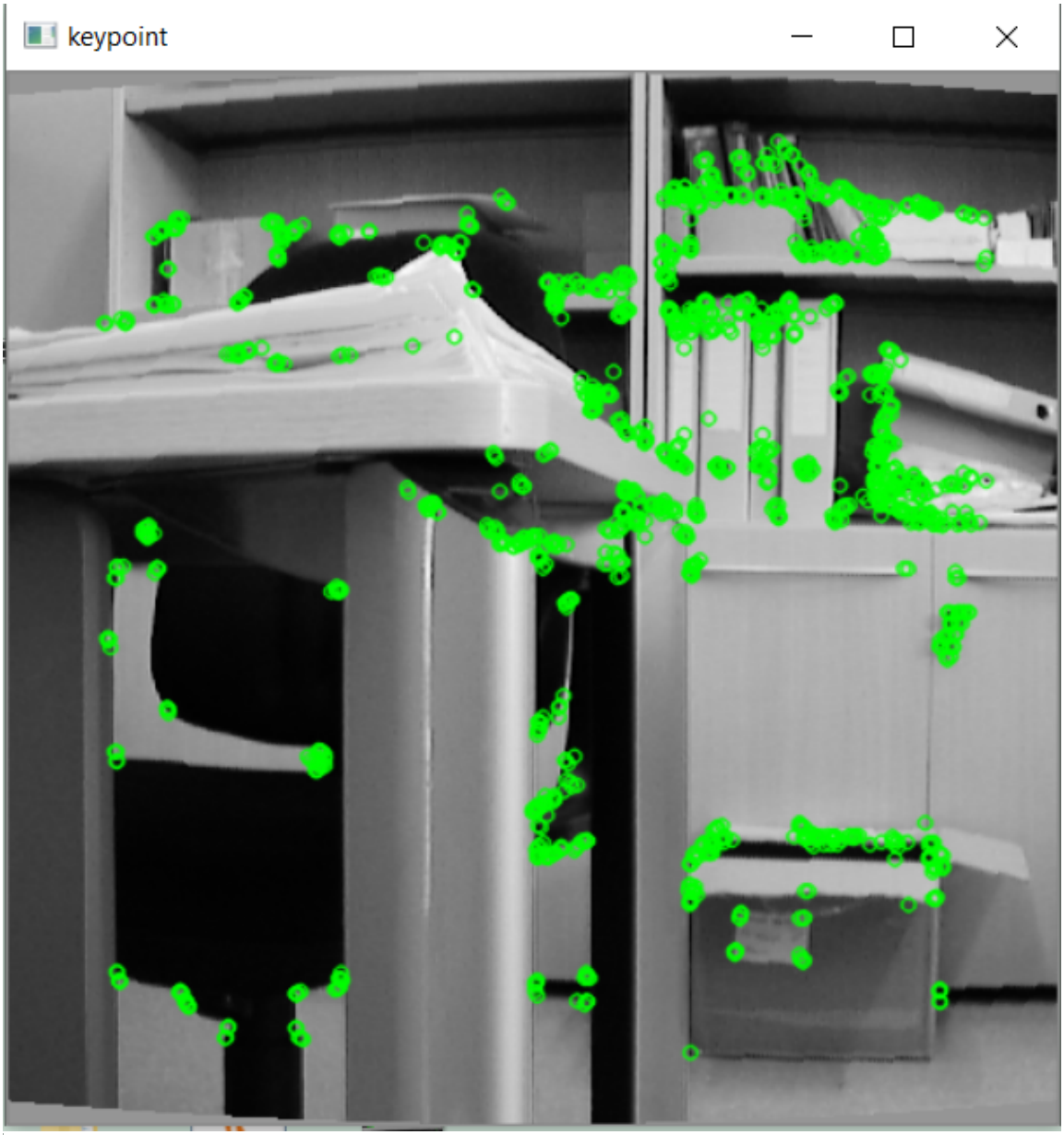
1 EXPLANATION

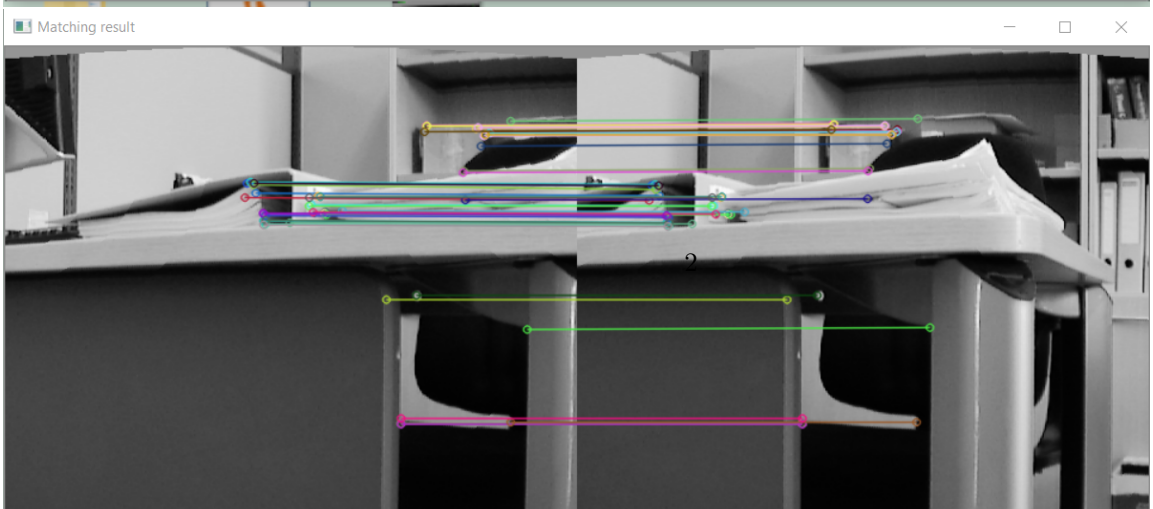
In this assignment we had to implement a panoramic image by finding homographic matrix by ransac.

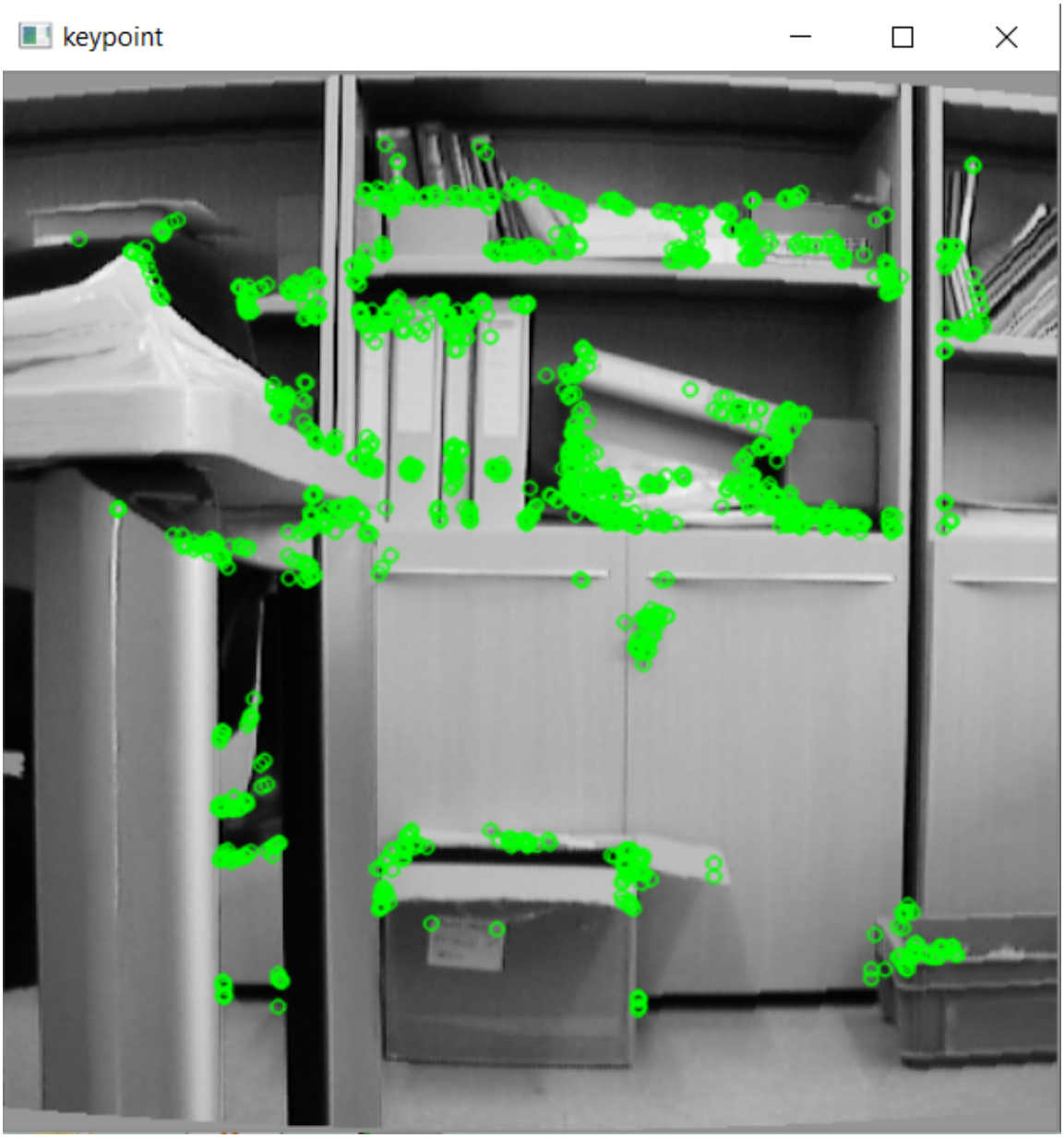
2 MY CODE

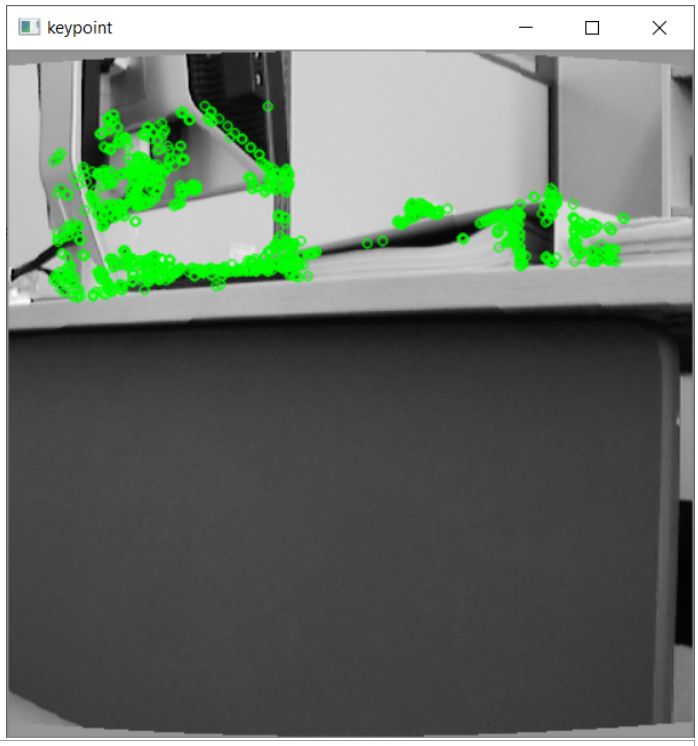
In my code I mostly used opencv and numpy libraries. First of all I took the pictures with glob, one by one in a loop so I didn't have to give input over and over again.
IMPORTANT!:To test my code you have to change the address in glob in the code.You need to change the pano file's name and you may need to specify where the data is.
After I took the image and grayscaled it. I put these images in an array- pano1 file is an array and img[0] is the first image etc.- Then in a for loop I did the operations to these images 2 at a time.
Firstly I find the keypoints with cv2.orb and show the keypoints with imshow.Then with BFmatcher I found the matching points and with drawMatches I showed the lines
And in my ransac function I wrote the ransac operations and inside it I call to Homography function witch in rhe end of ransac we acuire the homography matrix.
I couldn't do the image merging but I showed the homography matrices with print. It shows it onto screen. I had many problems with the assignment because wherever I looked into people always used the ready made functions and didn't really show how to do it butin the end I tried my best. I couldn't do the meging part so I don't have a panoramic picture but I showed the other steps as much as I could.
PS:I didn't show all the results because for evey indivisual image there is a keypoint and a match shower for every 2 images and for 9 files my computer didn't let me show it all here.Some examples are down below.

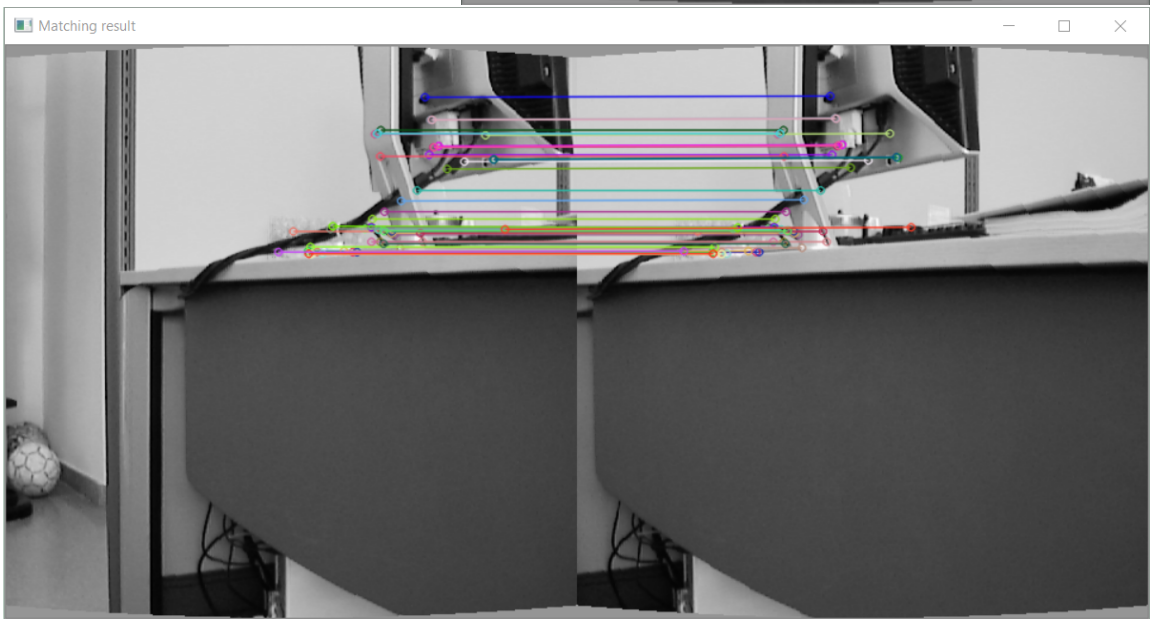
3 RESULTS

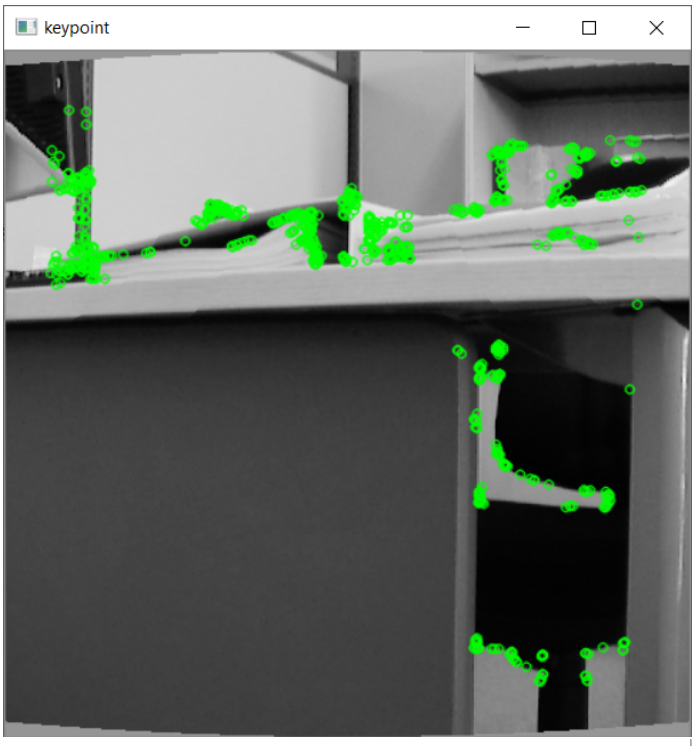


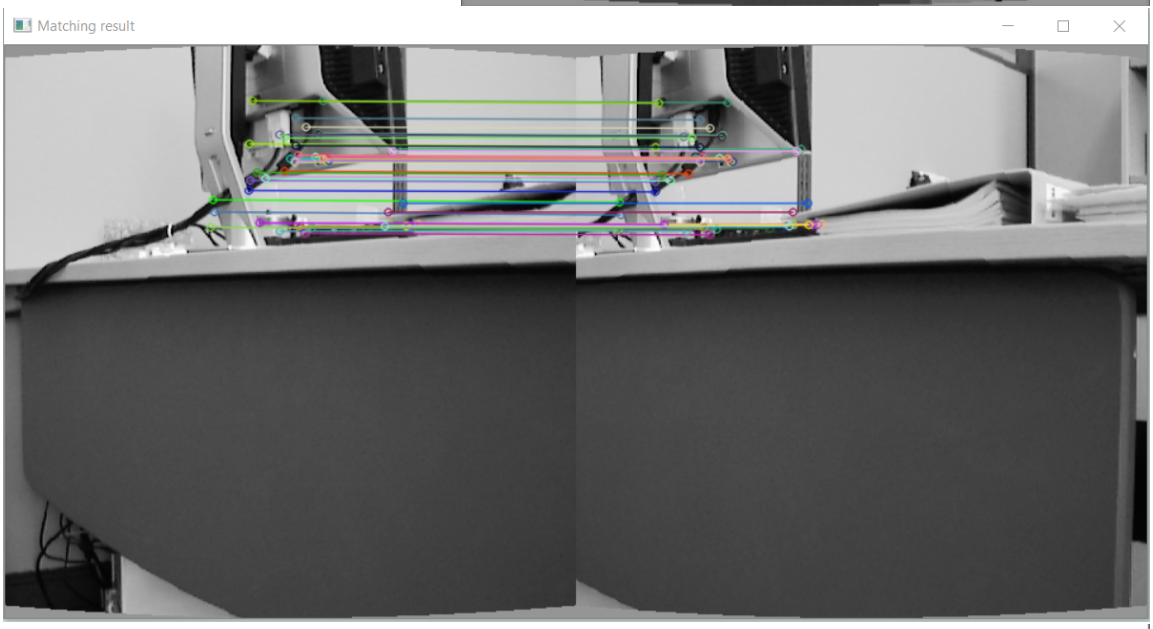


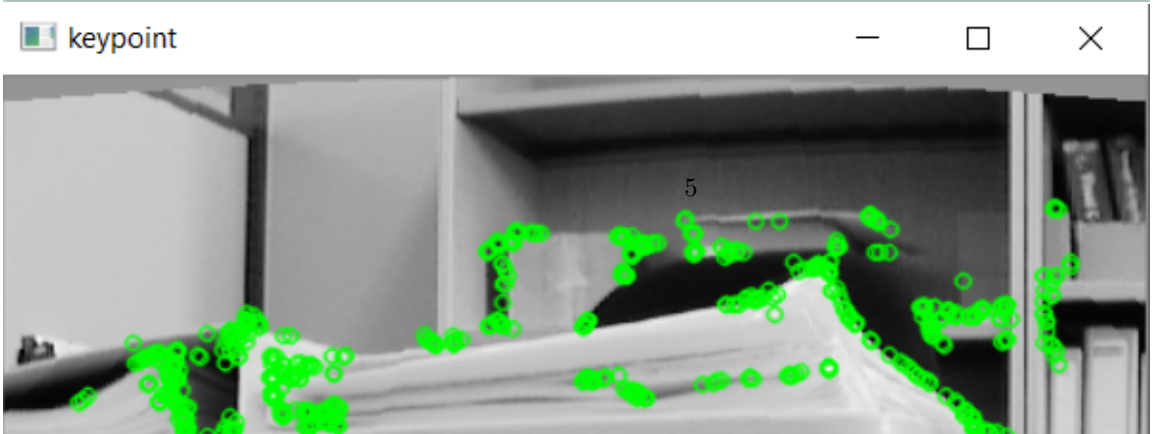

keypoint


keypoint


Matching result


keypoint


Matching result


keypoint