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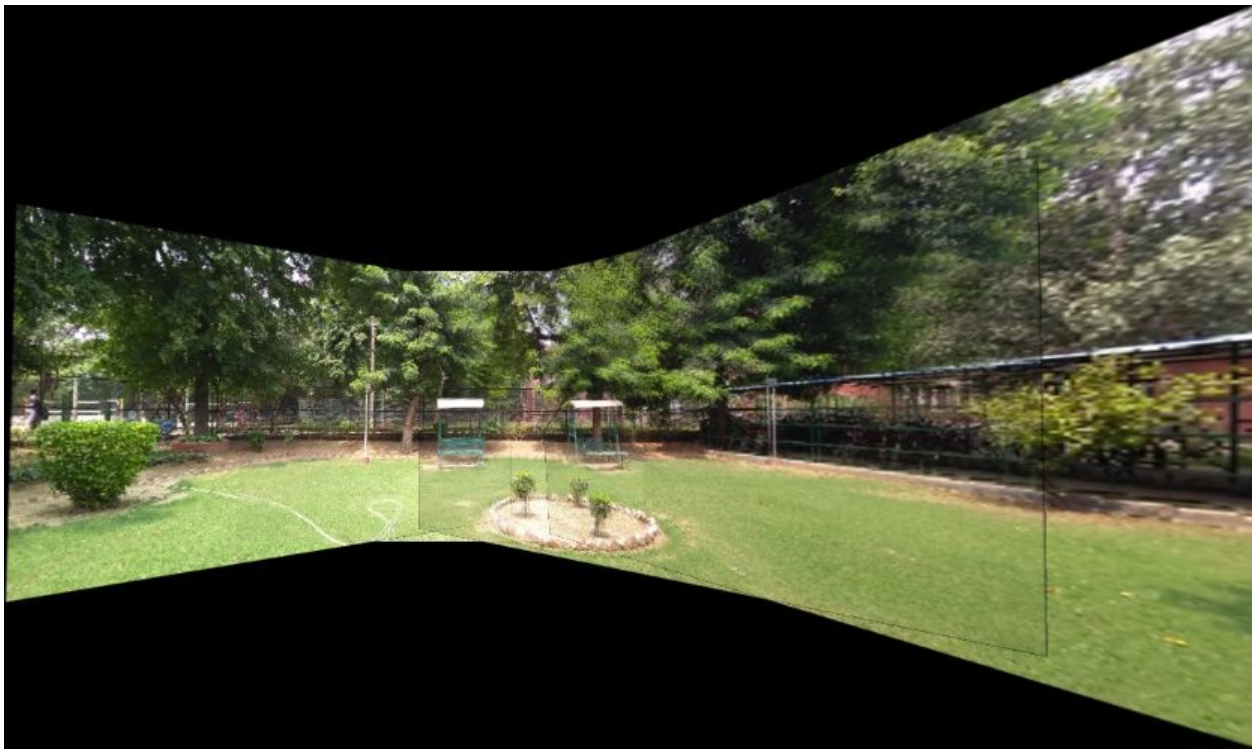
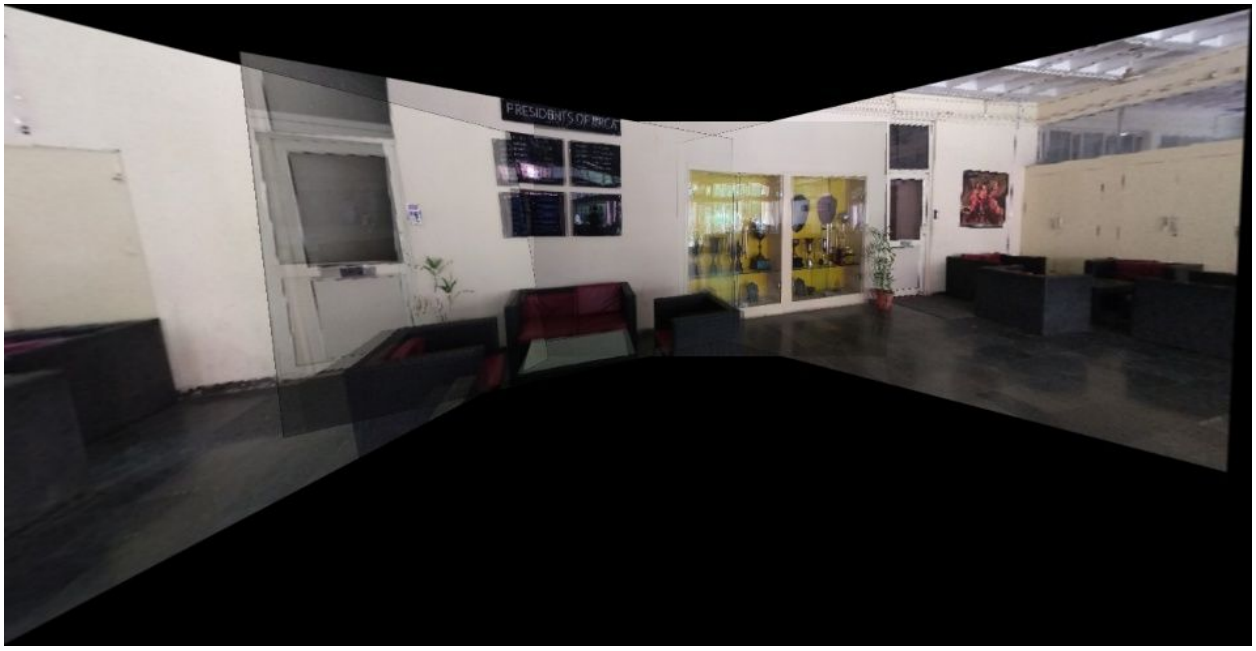
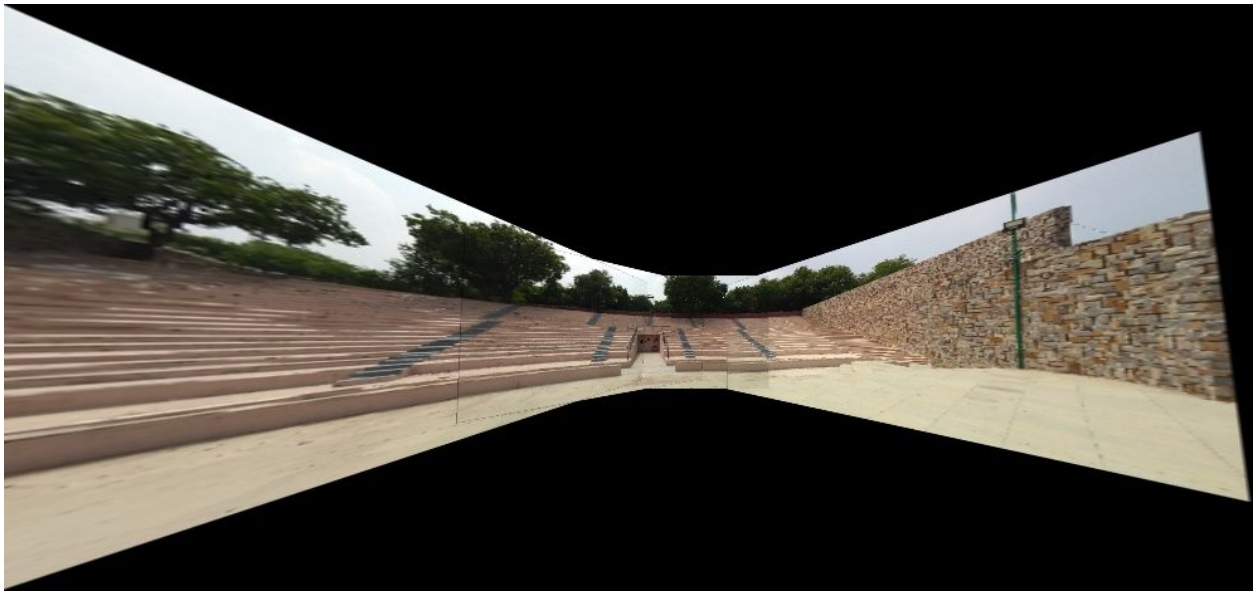
Assignment 2 Vision: Image Stitching

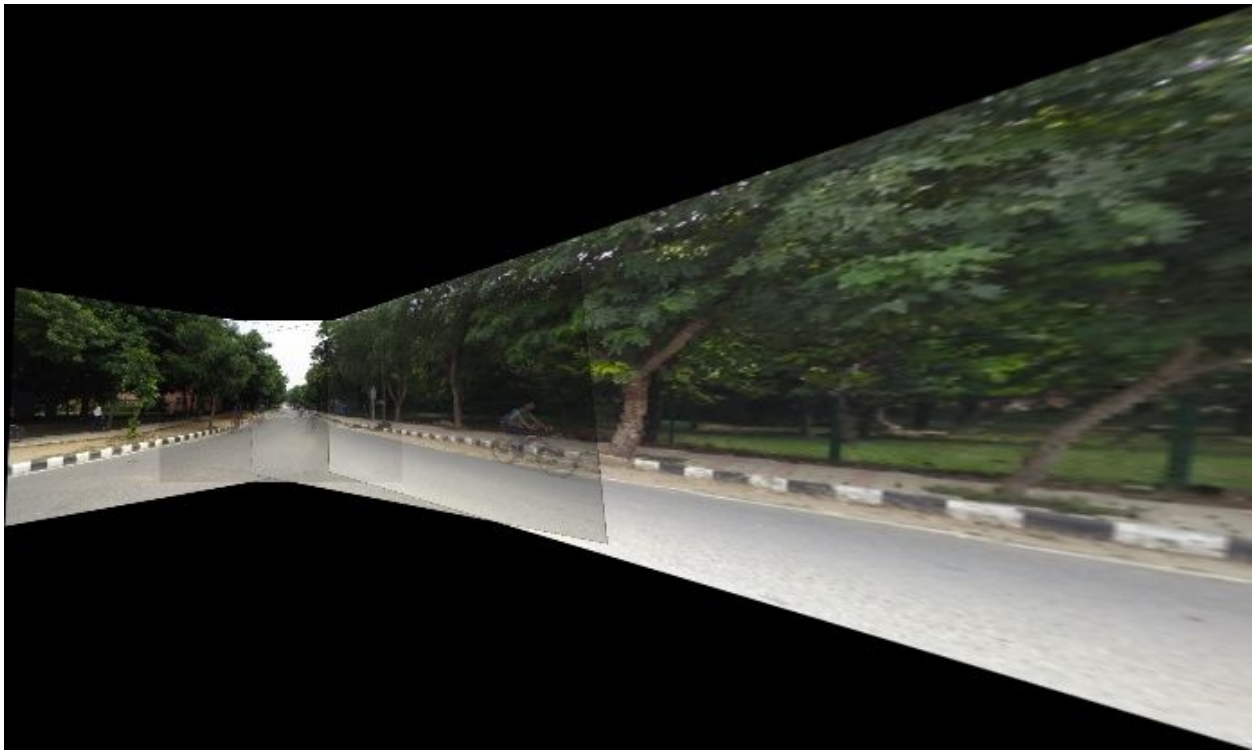
Approach

1. Get the images and find a good matching for the images.
    a. Matching found using SIFT and then finding the distance between nearest neighbours.
2. For each pair of images, we find the number of good points using FLANN based matcher as given in SIFT tutorial.
3. Constructed a graph taking images as nodes and the values as weights and found the Maximum spanning tree. Also chose the base images such that maximum number of points pass through it.
4. Shifted the base images to the center of a big canvas; took the next image and found the homography between images and transformed it.
5. The blending used is alpha blending.
6. The image is created.




PRESIDENTS OF IBCA

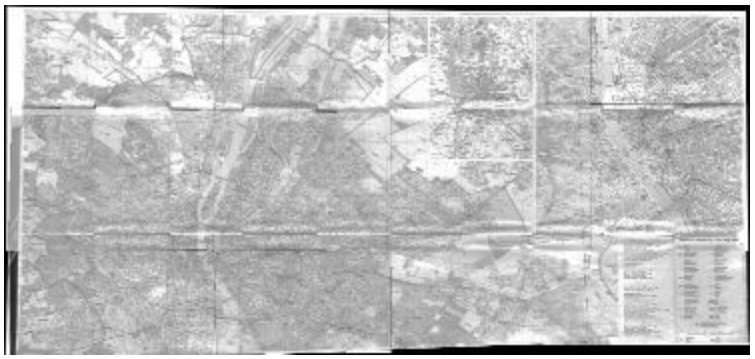




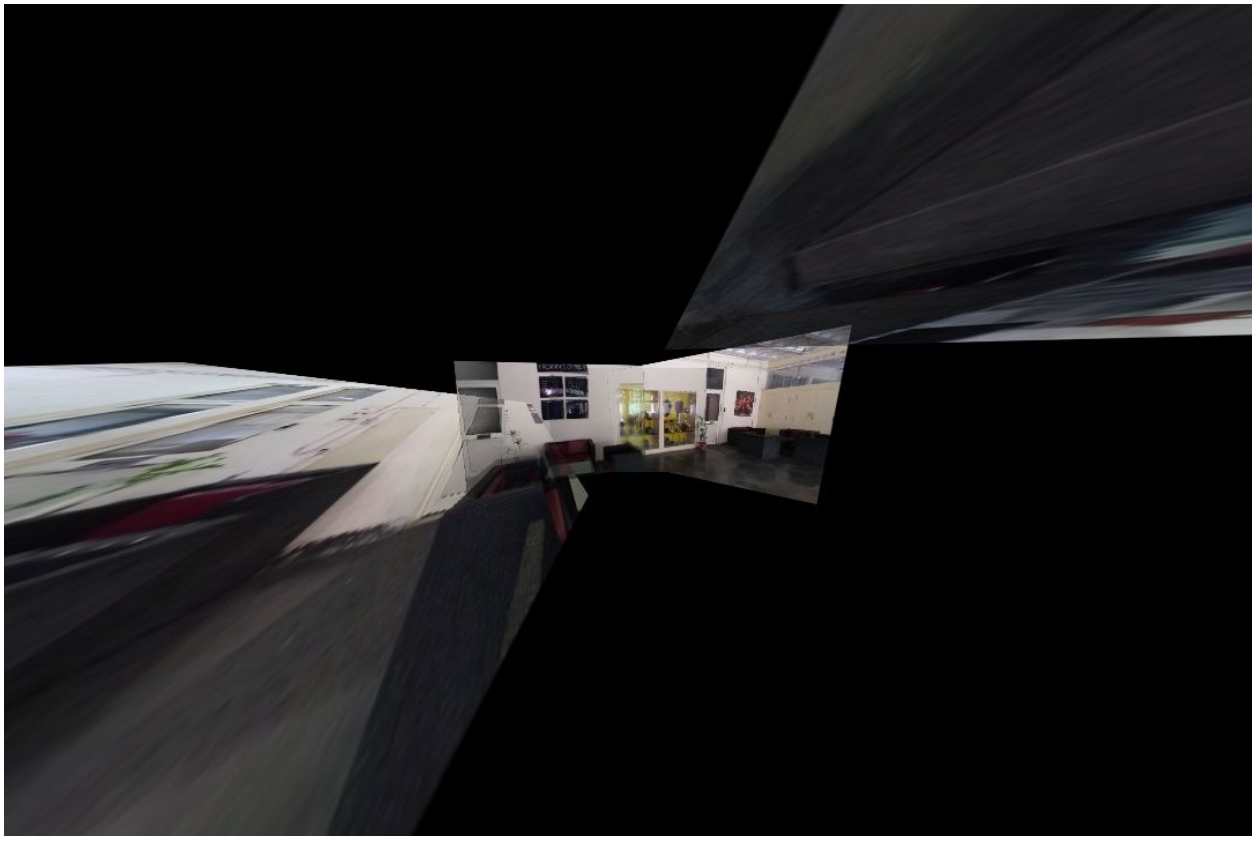
3. Using reconstruction from affine instead of perspective, the parallel line remained parallel and there was no perspective transformation in the images.

4. It worked well for images which were purely flat and cropped at different location.

It failed miserable for the case when there was a rotation of 90 degree in the images or when the number of features were enough at low scale and had to resize.



This is the map of budapest.



The matchigns between points were not good enough. So it got stretched out