Computer Vision
Assignment 2

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Algorithm:

1) Store the images, corresponding descriptors, and key points. We used the ORB descriptor.
2) For each pair of images, we calculated the corresponding matching points. We used the BruteForce-Hamming method to find the corresponding matches. We selected good matches according to their scores.
3) We then calculated homography matrices for each pair of images.
4) We defined the notion of scoring homography matrices. This filters out incorrect homography pairs.
5) Using the correct homography pairs, we find out the neighborhood for each of the images present in the folder.
6) We then stitched corresponding images and blended them accordingly.

Limitations:
Our algorithm will fail for the staircase example. This will happen because the ORB detector detects most of the keypoints at the corners in the image. In the staircase example, keypoints are detected at the intersection of black and white stairs which are present in almost all the images which may not be together also in the expected panorama. That is why the algorithm fails.

Outputs:
https://drive.google.com/open?id=1ziO4IxIPkxtDViCihImcCV7rFgOhHMPZ