# PROJECT 2: COMPUTER VISION AND IMAGE PROCESSING

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Task1:

The following steps were implemented to perform image stitching:

1. We read the image from the main and call the solution() function
2. Created a function sift_detector() to compute keypoints and descriptors for the images
3. Created a function matcher() to match the descriptor points and return the matches array using SSD
4. Within the solution() function, using matches and keypoints we computed the best homographic value.
5. After homography, within the solution() function, the RANSAC algorithm was implemented
6. In the solution() function, all the above created functions are called with appropriate data
7. Finally the image was warped and stitched to form a panorama image.

Note: I ran task1 in google colab with the below changes to the main function –

```
if __name__ == "__main__":
    left_img = cv.imread('/content/drive/MyDrive/left.jpg')
    right_img = cv.imread('/content/drive/MyDrive/right.jpg')
    result_img = solution(left_img, right_img)
    cv.imwrite('/content/drive/MyDrive/task1_result.jpg', result_img)
```

the obtained result file has been attached.