Assignment#01
Submission Date: 27th February,2024
Group Size: 02

For your friend's surprise birthday party next week, you want to quickly create a fun banner for the Facebook event. You decide that you can use techniques of Image Processing to subset (cut out) a picture of her face and replace all faces in another picturewith hers.

1. Choose an image of a group of people from the internet or from your personal library. Load this image. You can use the function imread to read in a ".jpg", ".tif", or ".png" as a 3D matrix. For simplicity, convert the image to grayscale.

2. Subset (that is, cut out of the original image) a portion (ex. someone's face) and display it as its own image.

3. Write a Python function that takes in two grayscale images and a set of coordinates as inputs, and places the smaller one on top of the larger one at the given set of coordinates.

4. Use the function you just wrote to insert the piece of the image you have cut in part (2) back into the original image in at least three different locations. Display and submit.

5. Write a new function (or modify your old one) to again place a small image into a larger one at a given set of coordinates, but this time blend the subset image with the background image by adding the two pixel values together and dividing by two in the regions of overlap.

Submit .ipynb file and an example of this function in action.