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# LOSSY ALGORITHM

TEKNOLOGI MULTIMEDIA B

KELompok 6



# **ANGGOTA KELOMPOK 6**



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# PENGERTIAN LOSSY ALGORITHM

**Algoritma Lossy** adalah suatu metode algoritma untuk mengompresi data dan men-dekompresinya. Metode ini paling sering digunakan untuk kompres data multimedia (Audio file dan gambar). Format kompresi Lossy mengalami generation loss yaitu jika mengalami proses kompresi-dekompresi berulang kali maka akan menyebabkan kehilangan kualitas secara progresif.

# SOURCE CODE

```
def imgcomp(fname):
    img = Image.open(fname)
    imggray = img.convert('LA')

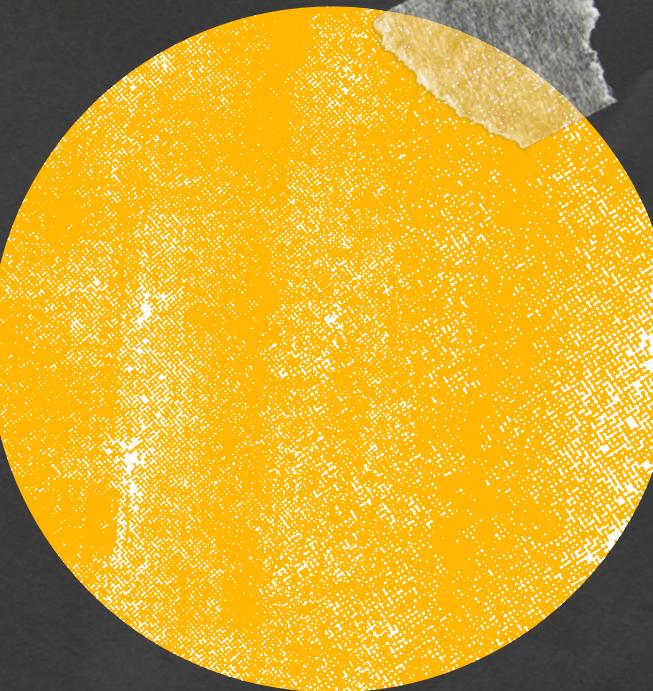
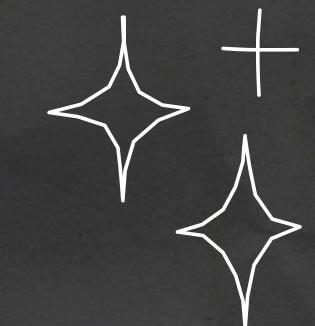
    imgmat = np.array(list(imggray.getdata(band=0)), float)
    imgmat.shape = (imggray.size[1], imggray.size[0])
    imgmat = np.matrix(imgmat)

    U, sigma, V = np.linalg.svd(imgmat)
    reconstimg = np.matrix(U[:, :1]) * np.diag(sigma[:1]) * np.matrix(V[:1, :])

    reconstimg = np.matrix(U[:, :100]) * np.diag(sigma[:100]) * np.matrix(V[:100, :])
    plt.imshow(reconstimg, cmap='gray')
    plt.show()
    plt.imsave('compressed.JPG', reconstimg, cmap='gray')
    return 1
```

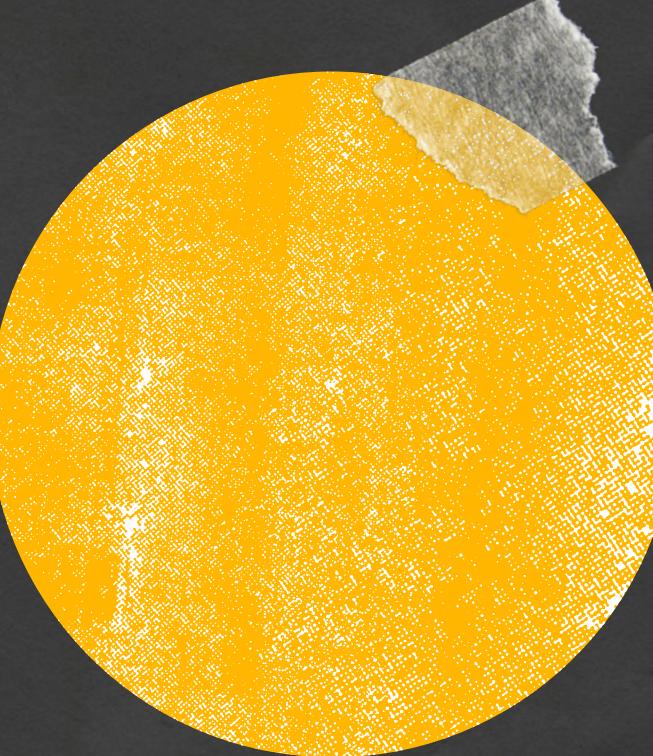
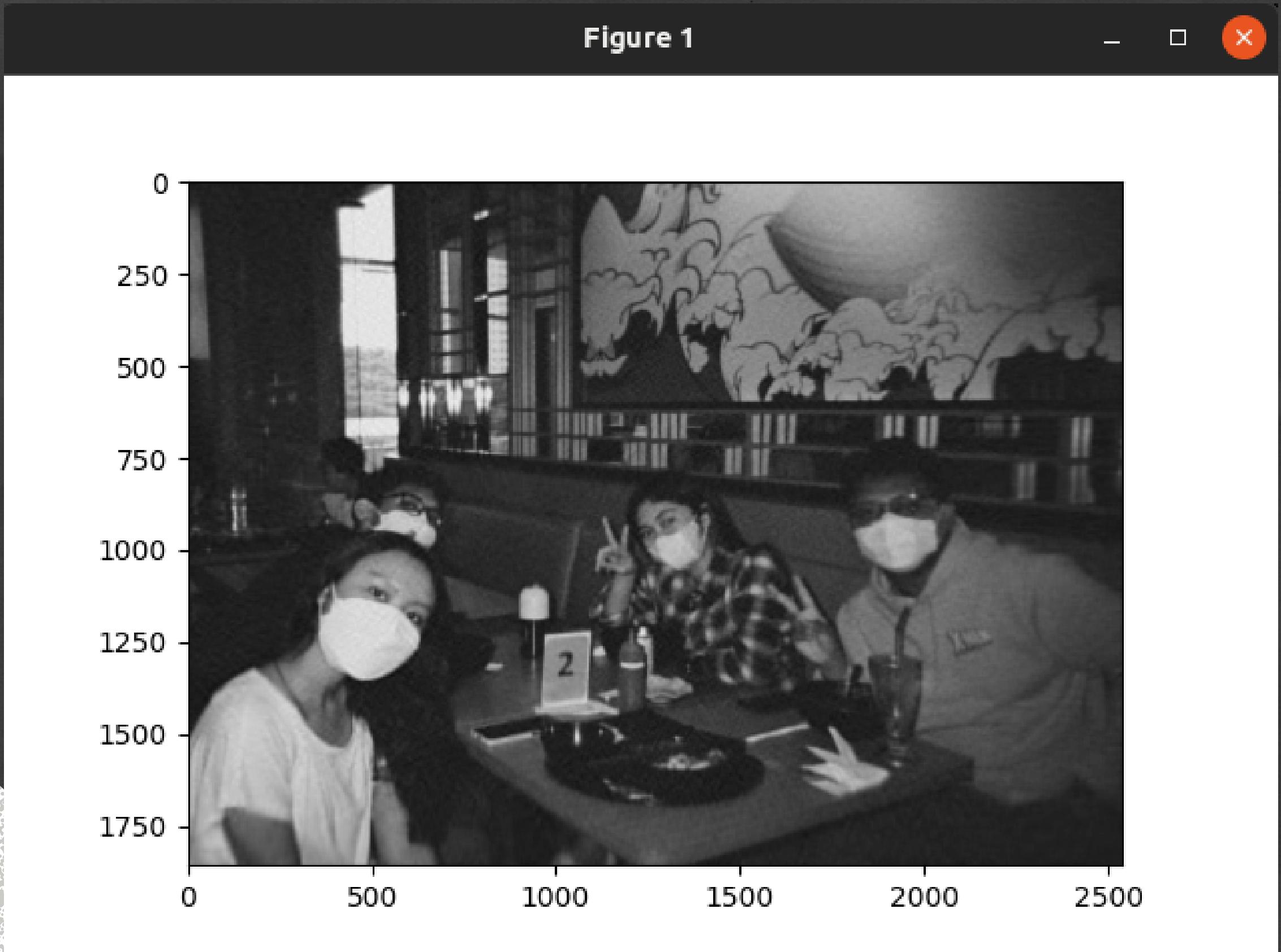
# BEFORE LOSSY COMPRESSION

From: 2,2 MB



# AFTER LOSSY COMPRESSION

Now: 471,9 kB



# MARI KITA DEMO

