Write a Python script that calculates approximations of an image using Singular Value Decomposition. The input image is available at

<https://drive.google.com/file/d/13N5bDwcZc40myJc-usx7H1c9CdNyuFcl/view?usp=sharing>

You may use library functions to read images from the file and calculate Singular Value Decomposition.

1. The image should be read in greyscale (see e.g. <https://matplotlib.org/3.3.1/api/_as_gen/matplotlib.pyplot.imread.html>)
2. For singular value decomposition, see https://numpy.org/doc/stable/reference/generated/numpy.linalg.svd.html

Submit the following files:

1. Source code written in **Python (.py or .ipynb)**
2. Doc or pdf file with image approximations constructed using k = 1,5,10,50,100 singular values

**Please find submission HW instruction on iCollege. Go to Content -> Submission instruction for HWs -> Submission instruction for HWs.pdf**

**Following submission instruction for your HWs is mandatory.**