Gray-level Binary Fonts Exercise

Topic: Image halftoning using Gray-level binary fonts transforms an image with L number of gray levels into an image with N perceived gray levels. N matrices are created and for each pixel, the appropriate matrix is copied at the appropriate position of the output image.

Exercise: Create a Python script file and perform the following tasks:

- Import OpenCV and NumPy libraries.
- Create a function that takes as input a grayscale image and a number of halftones and performs image halftoning using gray-level binary fonts. Then, return the halftoned image. You can add any extra parameters you desire.
- Read an image as grayscale.
- Apply image halftoning using gray-level binary fonts to the grayscale image.
- Finally, display the original image alongside the halftoned one.