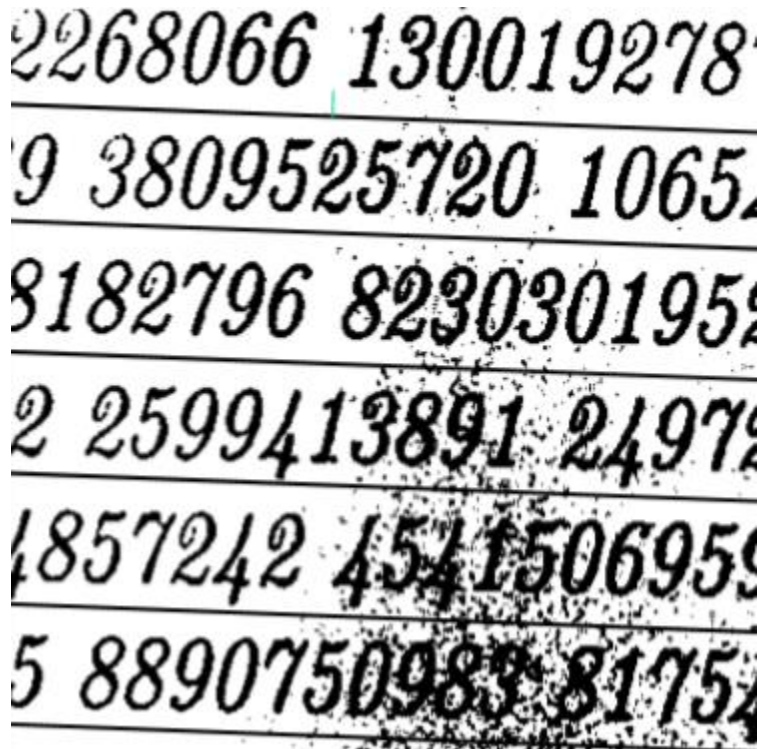


ASSIGNMENT 1 - NUMBER BOUNDING BOXES DETECTION



Given an image of numbers in black color on a white background. The input image may be affected by noise such as disconnected parts of each number, cluttered background ...

Your goal is to make a program using Python finding and drawing the bounding boxes of each number appeared in the given image. A bounding box of a number is a rectangle enclosing the number entirely.

Input: a color image (JPEG / PNG)

Output:

(1) the original image with number bounding boxes shown in red color (output.jpg)

(2) a text file in which each line including each bounding box information (the top-left coordinates, width and height of each detected bounding box separated by a space character) (output.txt)

Preferred method:

Finding connected components each of which can be a number candidates

Grading:

Points = Number of detected bounding boxes / Number of bounding boxes

