An-Najah National University
Faculty of Engineering and Information Technology
Digital Image Processing - 10671374
Second Semester 2023/2024 – Second Part
MATLAB Project – Part 1

Write MATLAB code to perform the following tasks:

1. Implement the component labeling algorithm as described in the slides.
2. Modify the component labeling algorithm from task 1 to consider the 8-connectivity.
3. Modify the component labeling algorithm from task 1 to consider a range of intensity values within the set *V*, where *V={min-max}*, to determine pixel connectivity. The values of *min* and *max* are user-input parameters.
4. Implement the size filter algorithm described in the slides.

Important note: Please use MATLAB to perform the basic operations such as image reading and direct pixel manipulation. Don't use any function that directly perform labeling or size filtering.

Please submit your source code, and adhere to the following regulations:

- Each student must complete the assignment **individually**.
- Only MATLAB programming languages can be used.
- Resources: in your course Moodle Page
- Deadline: 21.05.2024