Write a program with Graphical User Interface (GUI) to implement all segmentation techniques studied in the literature (as described in the slides). Your program should provide the following functionalities:

- Open an image
- Convert the image to gray-scale
- Apply all of the following segmentation filters and techniques:
    1. Point Detection
    2. Horizontal Edge Detection(sobel)
    3. Horizontal Line Detection
    4. Vertical Edge Detection (sobel)
    5. Vertical Line Detection
    6. +45 Line Detection
    7. -45 Line Detection
    8. +45 Edge Detection (sobel)
    9. +45 Edge Detection (sobel)
    10. Laplacian Filter
    11. Laplacian of Gaussian (log)
    12. Zero Crossing
    13. Apply Threshold
    14. Adaptive Threshold
    15. User-Defined Filter
- Implement a user-defined filter, allowing the user to design his own filter by specifying the size and coefficients. Then, apply it on the input image.
- Export the enhanced image and save it.