LAB4: Convolutional networks

Please write in Python using OpenCV TensorFlow and Keras libraries a code that recognizes three different fruits (banana, orange, lemon) in the image. The following points should be included:

1. Prepare a training set using basic graphic operations. The set must consist of at least 450 photos and descriptors.
2. Design a convolutional neural network (with intermediate maxpooling layers)
3. Propose proper activation functions
4. Optimize the network.
5. Perform a test classification

The training data set and the code, along with the video generated from its optimization and operation, should be delivered via the Teams platform within the time specified in the task.

Good luck
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