Project's files description (Edge detection and Hough Transform) - Luca Dolci 1234008 The project is structured in header and source files, as a normal cmake project:

1. `global.h`: header file which contains several global variables, for example a debug flag, the reference image (project-wide input image, for visualisation), the user monitor's dimensions and the window names.

2. `filter.cpp` (with header): definition of three classes for the computation of filters (gaussian blur, median filter and bilateral filter). Inherited from previous lab.

3. `detector.cpp` (with header): definition of three classes which implments different detectors: edges detector (using Canny detector), lines detector (using Hough transform for lines) and circles detector (using Hough transform for circles). The structure of the classes are the same as the filters: getters/setters for parameters, single constructor, a `doDetection()` function which performs detection and a `getResult()` function which returns the object of the detection (edges, lines or circles).

4. `utils.cpp` (with header): collection of utilities:q functions for visualisation (wrappers of OpenCV function `imshow()` for vertical or horizontal tiling of two images) and for drawing lines and circles, produced by the previous classes.

5. `callbacks.cpp` (with header): collection of various callbacks, called when the position of a trackbar is updated by the user. There's a callback for each of the parametrs of each detector. Each function maps the position of the trackbar in parameter, adapring the range.

6. `trackbar.cpp` (with header): collection of three functions which are designd to create the trackbars for the three different detections. Note: all of this three functions blocks the flow of execution: they return the detected object after the user has tuned the parameters.