Assignment-2A
CSL7360 - Computer Vision

NOTE:

1. This assignment has two parts. The second part will be released later (towards the end of this month).
2. **Deadline:** March 12, 2022, 10:30 PM. (for both parts)
3. **Maximum Points:** 100

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1. You are given a scene image containing logo, and a gallery containing reference logos for 10 business brands. Find out which business brand is present in the scene. Try out three different approaches and compare them.

   (a) Submit your implementation. File name of your python file should be logoMatch.py and it should take scene image, logo image and approach name as input and either show the matched region or say not enough match points found.

   (b) Show your results qualitatively in the report and write down your observation.

2. Implement Hough Transform for line detection from scratch. Compare the result of openCV implementation vs your implementation (both speed and performance wise) on picture of your choice.

   (a) Submit your implementation. File name of your python file should be HoughTrans.py.

   (b) Show your results qualitatively in the report and write down your observation.

3. A manufacturing company in Bangalore, came up with the following problem statement: They have one reference design image for a part of equipment and a probe image of either faulty or perfect. You need to identify faulty image and show the defective region.

(a) Submit your implementation. File name of your python file should be intelligentMatch.py, it should take two images (reference and probe) and outputs: faulty or perfect and if faulty it shows the region because of which it comes to conclusion that is faulty.

(b) Show your results qualitatively in the report and write down your observation.

End of Paper