CS 763/CS 764: Lab Zero

- Due: 2020/01/16 16:00 hrs

- Please write (only if true) the honor code. You can find the honor code on the web page. If you used any source (person or thing) explicitly state it.

- **This is an individual assignment**

Because deep learning problems are nowadays most easily accessed in Python, the goal of this lab is to get you started with OpenCV using Python bindings.

We know that you can always learn many of these things by yourself anywhere and anytime. But why not schedule this learning? The lab hour 'forces' you to spend time periodically on activities curated for you.

While we expect you to learn on your own elsewhere, and of course in the lab, for the purposes of grading and awarding marks, there are specific deliverables (sigh)!

1   The Tasks

Because the people in this class have varied backgrounds, to bring everyone up to speed, there are three components described in `html` format at this location.

You are free and encouraged to use the Internet in completing the tasks. Someone in the teaching team may be around to help if you get stuck, but we are not your first resort. While you are likely to learn many things in this process, each of the task has a specific intention which you should complete in order to earn your marks.

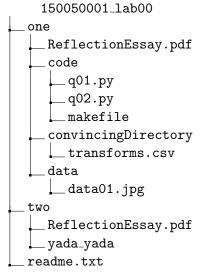See submission guidelines **very very** carefully.

1.1   Housekeeping tasks

For lab zero, we also have some additional housekeeping tasks.

1. Ensure that you are on Piazza (you should have received an invite). If you are not yet enrolled on Piazza, be sure to notify one of your TAs and ensure that your name is reflected on this page with a "yes" status for Piazza.

2. And yes, even if you are on Piazza, ensure that your name figures on the page with attendance as "yes".

3. Finally make sure that you record your "screen name" in your `readme.txt` (see below). We will eventually publish all your marks like this so we need to know a screen name that others in the class are, possibly, unlikely to know.

2   Submission Guidelines

1. Every submission should include a `readme.txt` (telling me whatever you want to tell me including any external help that you may have taken). You should explicitly write your honor code here (with your name and roll number below it as an electronic signature).

2. For each of the three sections, create a folder (sequentially) with the name **one** and **two** and so on. Each folder should contain (ideally in pdf format)

(a) `ReflectionEssay.pdf`: Contains the explanation for all the questions implicitly and explicitly raised. Provide an output of a sample run. Explain what you learnt in this assignment, and how this assignment improved your understanding.

(b) A directory called `code` which contains all source files, and only source files (no output junk files). The mapping of code file to question should be obvious and canonical: `q01.py`, `q02.py`, ..., `q11.py`.

(c) A directory called `data` on similar lines to code, whenever relevant. Note that your code should read your data in a relative manner (e.g., `../data/data01.png` will be the path used by `q01.py`)

(d) Create a directory called `convincingFolder` which contains anything else you want to share to convince the grader that you have solved the problem. We don't promise to look at this (especially if the code passes the tests) but who knows? This is your chance.

3. Once you have completed all the questions and are ready to make a submission, prepend the roll numbers of all members in your group to the top assignment directory name and create a submission folder that looks like this `150050001_130010009_140076001_lab0X_description.tgz` Please stick to `.tar.gz`. Do not use `.tgz`. Do not use `.zip`. Do not use `.rar`

4. To repeat, your submission folder should look something like:

```
        150050001_lab00
 └─ one
     ├─ ReflectionEssay.pdf
     ├─ code
     │   ├─ q01.py
     │   ├─ q02.py
     │   └─ makefile
     ├─ convincingDirectory
     │   └─ transforms.csv
     └─ data
         └─ data01.jpg
 ├─ two
     ├─ ReflectionEssay.pdf
     └─ yada_yada
 └─ readme.txt
```

5. Finally, upload to Moodle. (For group submissions, only the lowest roll number will upload).