UAEU جامعة الإمارات العربية المتحدة United Arab Emirates University

CSBP441: **Applied Computer Vision**

ASG#1 3 points

What to do:

1. Install **Python** (with **OpenCV** package)
   a. For Windows users, link to YouTube video tutorial
   b. For Mac Users, follow this tutorial. The tutorial also has instructions on how to install VS Code on Mac.

2. Install **Python IDE** (VS Code, PyCharm) or **Anaconda** (Python distribution suitable for all OS)

3. Complete "**Gui Features in OpenCV**" lessons on the OpenCV website, with the following links.
   a. **Getting Started with Images**. Relative video tutorial.
   b. **Getting Started with Videos**. Relative video tutorial.
   c. **Drawing Functions in OpenCV**. Relative video tutorial.
   d. **Mouse as a Paint-Brush**. Relative video tutorial.
   e. **Trackbar as the Color Palette**. Relative video tutorial.

4. Draw one of the images using OpenCV's available functions. Each group must draw a different image, see the table.

Group	Logo	Group	Logo
1		8	
2		9	
3		10	
4		11	

5		12	
6		13	
7		14	

5. Copy and paste the drawn picture below:

6. Submit the following as an assignment on **BB**; a late penalty applies, (1 day is 20%):
    a. Create GitHub accounts and put your code as a repository, including all the group members as collaborators
    b. Add me as a collaborator on the GitHub repo. Here is my GitHub account: https://github.com/MoyoG
    c. This file is a PDF file including a Google Colab link to your code.

Google Colab link:
https://colab.research.google.com/drive/1kD6eFPWCfSrDFvy8dJw8JXXEuL-PiMB2?usp=sharing

    d. Python code that produces the logo must work properly when it runs on another PC.

The full code:

```
!pip install opencv-python-headless

import cv2
import numpy as np
from google.colab.patches import cv2_imshow  # for displaying images in Colab


canvas = np.ones((500, 500, 3), dtype="uint8") * 255


font = cv2.FONT_HERSHEY_TRIPLEX
font_italic = cv2.FONT_HERSHEY_TRIPLEX | cv2.FONT_ITALIC


cv2.putText(canvas, "L", (100, 300), font_italic, 10, (0, 0, 0), 10, cv2.LINE_AA)


cv2.putText(canvas, "V", (90, 270), font, 10, (0, 0, 0), 10, cv2.LINE_AA)


cv2.putText(canvas, "LOUIS VUITTON", (100, 330), cv2.FONT_HERSHEY_PLAIN, 1.3, (0, 0, 0), 2, cv2.LINE_AA)


cv2_imshow(canvas)


cv2.imwrite("logo14_lv.png", canvas)
```