**DAILY ASSESSMENT**

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| **Date:** | **30/05/2020** | **Name:** | **Dhavala** |
| **Course:** | **Logic Design** | **USN:** | **4AL17EC027** |
| **Topic:** | * **Applications of Programmable logic controllers** | **Semester & Section:** | **6TH SEM & A Section** |
| **Github Repository:** | **Dhavala27** |  |  |

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| **FORENOON SESSION DETAILS** |
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| **Report** |

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| **Date:** | **30/05/2020** | **Name:** | **Dhavala** |
| **Course:** | **PYTHON** | **USN:** | **4AL17EC027** |
| **Topic:** | * **Building an mobile app using python** * **Python for Image and Video Processing with OpenCV** | **Semester & Section:** | **6TH SEM & A Section** |
| **Github Repository:** | **Dhavala27** |  |  |

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| **AFTERNOON SESSION DETAILS** |
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| **Report** |
| Building a mobile app using python  Installing the Library  To build mobile apps with Python we need the kivy library. You can install kivy from your terminal with pip:  Pip install kivy  If the above command throws errors, don't worry.  Run the following commands instead:  Pip install <https://github.com/kivy/kivy/archive/master.zip>  Pip install kivy.deps.glew  Pip install docutil pygments pypiwin32 kivy.deps.sdl2  Kivy should now be installed.  Deploying to iOS  Unfortunately, converting a kivy app to an iOS app requires you to have access to a Mac computer. The conversion cannot be done on a Windows or a Linux computer.  It's also currently not possible to do this with Python 3. You need to use Python 2.  I will replace these notes with a video once there's a stable method to convert kivy apps to iOS. Meanwhile, you can try the official instructions found here: <https://kivy.org/doc/stable/guide/packaging-ios.html>  or if you prefer video you can watch this YouTube video from Erik Sandberg: <https://www.youtube.com/watch?v=UAi3PG-qN2k>  Python for Image and Video Processing with OpenCV  Installing the Library  If you haven't installed OpenCV yet, please do so by following the instructions below.  If you don't know if you have OpenCV, please open Python and type import cv2. If you don't get an error, it means OpenCV is installed.  To install:  1. Open the command line and type:  Pip install opencv-python  2. Then open a Python session and try:  import cv2  3. If you get no errors, that means you installed OpenCV successfully. If you get an error please see the FAQs below:  FAQs  1. My opencv installation didn't go well on Windows  Solution:  1. Uninstall opencv with:  Pip uninstall opencv-python  2. Download a wheel (.whl) file from [this link](http://www.lfd.uci.edu/~gohlke/pythonlibs/#opencv) and install it with pip. Make sure you download the correct file for your Windows version and your Python version. For example, for Python 3.6 on Windows 64-bit you would do this:  Pip install opencv\_python-3.2.0-cp36m-cp36m-win\_amd64.whl  3. Then try to import cv2 in Python again. If there's still an error, then please type the following again in the command line:  Pip install opencv-python 4. Now you should successfully import cv2 in Python.  2. My opencv installation didn't go well on Mac  Solution:  If pip install opencv-python didn't go well please install OpenCV for Python 2 and use Python 2 to run the programs that contains cv2 code. Its' worth mentioning that Python 2 is installed by default on Mac, so no need to install Python 2. Here are the steps to correctly install OpenCV:  1. Install brew:  Open your terminal and execute the following:  /usr/bin/ruby -e”$(curl-fsSL  <https://aw.githubusecontent.com/Homebr>ew/install/master/install)”  2. OpenCV depends on GTK+, so please install that dependency first with brew (always from the terminal):  Brew install gtk+  3. Install OpenCV with brew:  Brew install opencv  4. Open Python 2 by typing:  python  5. Import cv2 in Python:  Import cv2  If you get no errors, that means you installed OpenCV successfully.  3. My opencv installation didn't go well on Linux  1. Please open your terminal and execute the following commands one by one:  sudo apt-get install libqt4-dev  cmake -D WITH\_QT=ON ..  make  sudo make install  2. If that doesn't work, please execute this:  sudo apt-get install libopencv-\*  3. Then install OpenCV with pip:  pip install opencv-python  4. Import cv2 in Python. If you get no errors, that means you installed OpenCV successfully.  Batch Image Resizing (Practice)  Write a script that resizes all images in a directory to 100x100. You can find an attached ZIP file with some image files in the *Resources*.  Solution  Import cv2  Import glob  Images=glob.glob(\*.jpg”)  For image in images:  Img=cv2.imead(image,0)  Re=cv3.resize(img.(100,100))  cv2.imshow(“Hey”,re)  cv2.waitKey(500)  cv2.destoyAllWindows()  cv2.imwite(“resized\_”+image,re)  I first created a list containing the image file paths and then iterated through the aformentoned list.  The loop: reads each image, resizes, and displays the image; waits for the user input key, closes the window once the key is pressed, and writes the resized image. The name of the resized image will be "resized" plus the existing file name of the original image. |

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| **Date:** | **29/05/2020** | **Name:** | **Dhavala** |
| **Course:** | **Bonus session** | **USN:** | **4AL17EC027** |
| **Topic:** | **Simplifying the brain** | **Semester & Section:** | **6TH SEM & A Section** |
| **Github Repository:** | **Dhavala27** |  |  |





