

The objective of the assignment was to make us understand the importance of creating virtual environments. New releases of various libraries keep coming from time to time which might or might not support the current development environment.

Based on the explicit requirement of different projects, we require different versions of the same library. For example, in one project if we need to use the SIFT algorithm, we will need the opencv-python 3.4.2.16. In another project, if we wish to use another function that is not available in the current installation, we will need to install the latest version, which will automatically remove the existing installation if a separate virtual environment is not created. Thus, virtual environments for different projects become important to isolate the libraries used for one project from the other. Also, I learned that not all libraries have builds in all the python versions. For example, before the start of this assignment, the existing python version in my system was Python 3.9. I tried installing the desired open-cv version but pip was unable to find it. When I searched the internet for the python versions compatible with opencv-python 3.4.2.16, the last support was for Python 3.7. So, I installed Python 3.7 and added it as an interpreter to PyCharm. I created the virtual environment next and installed the dependencies as instructed in the assignment. Investigating the right version of the python interpreter which is compatible with the installed dependencies is equally important to finish the task.