DL/DLOps (2023)
Lab Assignment 5: Docker [10 Marks]
Deadline: 19/03/2023, 23:59:59
There will be a 25% penalty for each day of late submission.

Guidelines for submission
1. Submit a demo video (not more than 3 mins) which shows you making the docker container and running the code.
2. The demo file should be properly named with your complete roll number XYZ (ex: "XYZ_Lab_Assignment_5.mp4").
3. The report file should be named with your complete roll number XYZ (ex: "XYZ_Lab_Assignment_5.pdf")
4. The report file should contain the loss curves and the accuracy values.
5. Plagiarism will not be tolerated, and strict action will be taken as per institute policies.

Question 1 [10 marks]
Implement a Neural Network using the IRIS dataset. Perform backpropagation using early stoppping. You can choose the activation function and loss function at your convenience, which gives the best performance.

The Neural Network should have 2 hidden layers, one with 4 neurons and one with 5 neurons. The input layer should have 4 neurons and the output layer should have 3 neurons.

Report the test loss, test accuracy, train loss and train accuracy. The loss should be reported in the form of curves.

Note - For today's lab you can use docker in your local system. If you don't have a GPU then also it's fine as the IRIS dataset is very small.

For running the code in docker you need to convert your .ipynb code in .py format.