Lab 05	Implement "back propagation" SGD
IT563 Data Mining, Winter'2019, DAIICT, Gandhinagar; pm_jat	

This is two week long lab.
Here you implement stochastic gradient descent and back propagation algorithms.

1. Implementation should address following requirements
    a. At the time of object construction, you should be able to specify: number of inputs, number of layers, and number of nodes for each layer.
    b. Able to set learning rate.
    c. Able to specify seed for generating random values for initializing weights.
    d. You can implement for "logistic" as activation function and "quadratic" cost function.

2. Use implementation for training model for IRIS dataset.
3. Report: Convergence time (number of iterations) as function of learning rates
4. Using your model, predict output for first five examples from the dataset.

Deliverables:

1. Source Code
2. Weight Vector
3. Answers of questions 2-4.

Submit all deliverables in a single compressed file named as <your_id>_lab05.zip