The following are a few Reference Material Links that will help you get more idea about the topics that are going to be discussed:

- Linear Classifiers and GD

https://en.wikipedia.org/wiki/Linear_classifier

https://en.wikipedia.org/wiki/Gradient_descent

https://machinelearningmastery.com/gradient-descent-for-machine-learning/

- Linear Regression, Logistic regression

https://spin.atomicobject.com/2014/06/24/gradient-descent-linear-regression/

https://machinelearningmastery.com/linear-regression-tutorial-using-gradient-descent-for-machine-learning/

https://towardsdatascience.com/linear-regression-using-gradient-descent-in-10-lines-of-code-642f995339c0

https://en.wikipedia.org/wiki/Logistic_regression

https://machinelearningmastery.com/logistic-regression-for-machine-learning/

- Notion of Loss Function, Optimization

https://en.wikipedia.org/wiki/Loss_function

- NN: Single Layer and Multi Layer Perception (no BP)

- Convex and Non Convex Optimization. Local and Global optima.

https://en.wikipedia.org/wiki/Convex_optimization

https://in.mathworks.com/help/optim/ug/local-vs-global-optima.html