**Assignment 4: Logistic regression**

1. Derive the Newton Raphson algorithm of logistic regression with the binary target.
2. Implement logistic regression and verify that your codes are working properly using Iris data only with samples of “[virginica](https://en.wikipedia.org/wiki/Iris_virginica)” and “versicolor”.
3. Evaluate the generalized performance using 10-fold cross validation.

* You must show the results in terms of confusion matrix, accuracy, AUC, sensitivity, and specificity for the whole dataset (one time estimation) and training sets as well as the test sets.