**Machine Learning - Course 1 - Fundamentals**

**Assignment #3**

**Due: S 12, 2018**

**Note:** Submit your homework by pushing your code to your Gitlab account.

1. Use SVM Model to classify whether a patient has diabetes. Report the accuracy in the cases of:
   1. SVC with linear kernel
   2. LinearSVC (linear kernel)
   3. SVC with RBF kernel (gamma = 0.7)
   4. SVC with polynomial (degree 3) kernel

What is the best model? Plot AUC to compare results

1. Continue to the above problem, try other degrees (2, 3, 4, 5) of SVC with polynomial and find the best degree for this problem.

Notes: You can find datasets for this assignment in folder named ‘*data*’.