# ML Lab (CS360)

# Assignment 6

1. Implement logistic regression model (Binary classification) without using the inbuilt library on the **Iris dataset** and perform the following:

   *(Hint to load the dataset*
   *from sklearn import datasets*
   *iris = datasets.load_iris())*

   i)    Pre-process the data to use only 2 classes (Iris-Setosa and Iris-Versicolour)
   ii)   Divide the dataset into train, validation and test with the dataset division ratio of your choice.
   iii)  Hyperparameter tuning on the validation set is required to be done.
   iv)   Check for overfitting on the validation set by plotting graph during training of the finalized model.
   v)    Report the classification accuracy (on test set and train set) by varying the percentage of training samples.

   **Please do not copy anyone's code. Try to learn to code.**

   Thank you
   Happy learning