Practice 4B: Linear Regression

Supervised Learning - 1 December 2021
Diabetes dataset : regression problem

1. Continue working on the Diabetes dataset exploited for Practice S_4A. In this case add to the dataset polynomial features of degree 3.
2. Use the Sklearn implementation of Linear Regression to find the best θ vector. Provide an interpretation of each hypothesis parameter in the trained model.
3. Train a Linear Regression model with Ridge regularization. Iterate over different values of α in order to find the value which minimize the test-MSE.
4. Train a Linear Regression model with Lasso regularization. Iterate over different values of α in order to find the value which minimize the test-MSE. Provide an interpretation of each hypothesis parameter in the trained model.