

## HOMework ASSIGNMENT I

- Work individually.
- Submit a code and a short explanation along the code. The names of the files should be YOURNAME.py (or YOURNAME.ipynb) and YOURNAME.docx (e.g. OrsanOzener.py, OrsanOzener.docx)
- Any type of plagiarism will not be tolerated and will lead to disciplinary actions.
- **Due Date: 20th of December 2019, 13:00. Please submit your report through LMS. Only ONE submission per person.**

### 1 Introduction

In this assignment, you are supposed to work on a binary classification problem in which we need to predict a value of the variable “TenYearCHD” (zero or one) that shows whether a patient will develop a heart disease. You are expected to come up with an ensemble method that has a better performance than the traditional methods. The data is on the following csv.file: “framingham.csv”. Keep in mind that you need to perform any data cleaning as I have already given you the relevant part of code “HW1LMS.ipynb”.

The performance criteria will be the ROC AUC Score. In this homework, your model is supposed to beat standard models’ performances such as decision tree, random forest etc. You are not allowed use any other models (so do not use XGBoost, LightGBM, or similar methods).

If you have any questions, please send an email to: [orsan.ozener@ozyegin.edu.tr](mailto:orsan.ozener@ozyegin.edu.tr)