Project 1 California Housing Prices

Due Date: 11:59 pm on Oct 4, 2024

### Objectives:

* To understand a machine learning project looks like
* To use some of the tools to train machine learning system
* To use Python framework Scikit-Learn

**Problem**

Chapter 2 uses California Housing Prices project to illustrate the main steps to solve a machine learning project as well as show you some of the tools you can use to train a machine system. In this project, you are going to implement the California Housing Prices model by going through the whole process illustrated in Chapter 2.

**What to Hand In**

* Submit all source programs to your class account on **GitHub-Project1**
* Submit the following documents to the drop box Project 1 on D2L:
  + all source programs
  + running results on **GitHub**
* Submit a ducument that contains the following sections:
  + Frame the Problem and Look at the Big Picture
  + Get the Data
  + Explore the Data
  + Prepare the Data
  + Shortlist Promising Models
  + Fine-Tune the System
  + Present Your Solution
  + Summary about what you learned in this project

For details of above each section, please refer to Chapter 2 and Appendix A Machine Learning Project Checklist.

**Grading**

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| **Requirements** | **points** |
| Source code | 100 |
| Frame the Problem and Look at the Big Picture | 10 |
| Get the Data | 10 |
| Explore the Data | 10 |
| Prepare the Data | 10 |
| Shortlist Promising Models | 10 |
| Fine-Tune the System | 10 |
| Present Your Solution | 50 |
| Summary about what you learned in this project | 10 |
| **TOTAL POINTS** | **220** |