

**CECS 551**  
**Assignment 1**  
**Total: 20 Points**

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General Instruction

- Submit uncompressed file(s) in the Dropbox folder via BeachBoard (Not email).
  - Use Python 3, any other programming language is not acceptable.
  - You can import modules in the Python Standard Library (please check the full list *here*). If you want to use any other library, please consult with the instructor.
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1. (20 points) Implement regression algorithm and show the result using `scikit-learn` and `matplotlib` library.

The checking point of the assignment; Python programming skill, Jupyter notebook, `scikit-learn`, and `matplotlib`.

- i. Find `Assignment_1_linreg.ipynb` and `Assignment_1_logreg.ipynb`.
- ii. You will be asked to fill-in the blanks to generate the output. For example, in Figure 1. “`# Show the list of feature names for the dataset`” is the question and “`list(raw.feature_names)`” is the answer for the question.
- iii. Follow the instructions and fill the blanks in the **Jupyter notebooks**. Your answers should show the similar results with the outputs in the instructions.
- iv. Submit your `ipynb` files.

```
In [2]: from sklearn.datasets import fetch_california_housing
raw = fetch_california_housing()

X = raw.data
y = raw.target

# Show the list of feature names for the dataset

list(raw.feature_names)
```

```
Out[2]: ['MedInc',
        'HouseAge',
        'AveRooms',
        'AveBedrms',
        'Population',
        'AveOccup',
        'Latitude',
        'Longitude']
```

Figure 1: An example of questions