FINS3648/FINS5548 Python Assignment

FinTech Use Case

Compare and contrast results from TWO models designed to predict levels of potential sale price (fair value) of real estate assets in a specific area given predefined asset and environmental characteristics (modified data is provided).

Specifically, your IoT FinTech team members are interested to see the effect of "size of living area" variable called "GrLivArea" on the mean asset value variable called "SalePrice". You are free to choose any two relevant models (we have covered few ML variations starting from a base simple OLS). Your task is to critically explain your steps and results and show model coefficients and model accuracy, for example in mean square error (MSE) and/or R^2.

Model choices

1. Linear Regression
2. RANSAC Regressor
3. LASSO
4. Polynomials
5. Decision Tree
6. Random Forest

Your team members are keen to learn about python and would like to see and read the python script with simple explanations of your steps. As a result, delivery is in one python.py script format as **<studendtID_Name.py>** with '''<text>''' explanations of your steps. The aim is to describe your detailed steps from input variables to model parameters and compare and contrast final results in a critical, concise and logical way.

Recommended formats

```
'''
    <explain steps>
'''

# <describe line of code>

#START CODE HERE


#END CODE HERE

'''
    <explain results>
'''
```