DATA-445 IN-CLASS ASSIGNMENT OCTOBER 4, 2023

Consider the `CarPrice_Assignment.csv` data file. This data is public available on the Kaggle website, and has information on cars (characteristics related to car dimensions, engine and more). The goal is to use car information to predict the price of the car. **In Python**, answer the following:

1. (4 points) Using the `pandas` library, read the csv data file and create a data-frame called `car_price`.
2. (5 points) Using the `wheelbase`, `enginesize`, `compressionratio`, `horsepower`, `peakrpm`, `citympg`, as the predictor variables, and `price` is the target variable, split the data into `train` (80%) and `test` (20%).
3. (10 points) Using the train dataset, build a support vector machine model (use `kernel = 'rbf'`). After that, use this model to predict on the test dataset. Report the MSE of this model. Make to transform the input variables in the `train` and `test` dataset to 0-1 scale .sing the `MinMaxScaler` and `Pipeline`.
4. (10 points) Using the train dataset, build a support vector machine model (use `kernel = 'poly'`). After that, use this model to predict on the test dataset. Report the MSE of this model. Make to transform the input variables in the `train` and `test` dataset to 0-1 scale .sing the `MinMaxScaler` and `Pipeline`.
5. (3 points) Using the results from parts (3) and (4), what model would you use to predict car prices? Explain.