Texas Christian University
COSC 40023   Spring 2025
Assignment 2

Due: Feb 10th, Monday, at 11:30 PM (Late submission NOT accepted)

Submission (two files, no compression): `assignment2.py` and `assignment2.R` through TCU Online

Download the dataset called "Dealership_Data.csv". This dataset is generated based on the report of a used car dealership. The units of both columns are `$1k`.

Build simple linear regression models in both Python and R. Two files named `assignment2.py` and `assignment2.R` should be created. Here are some additional requirements.

1. `25%` of the data should go to the test set. In addition, `random_state` must be set to `0` in Python and `seed` must be set to `123` in R.
2. Test set results should be predicted and stored in `y_pred`
3. A training set plot and a test set plot must be generated in each programming language. In addition, under each language, x-axes for the training set plot and the test set plot must have approximately the same range, and y-axes for both plots must also have approximately the same range. Lastly, all the plots should have proper coloring, titles and axis labels.
4. Print out the slope and the intercept of the model.
5. Print out the predicted sell price when the list price is `20k`
6. Have sufficient single-line and multi-line comments.