***Group Activity 2***

***Comparing the Performances of Different Regression Models***

In this lab, you are expected to explore different regression models, and compare their performances. The boilerplate is to be followed strictly (do not change function definitions, etc.)

The regression models we will be looking at are:

1. **Linear Regression** – Classic approach assuming linear relationships
2. **Polynomial Regression** – Extends linear regression by adding polynomial features
3. **Lasso Regression** – Linear regression with L1 regularization
4. **Ridge Regression** – Linear regression with L2 regularization
5. **Elastic Net Regression** – Combination of L1 and L2 regularization
6. **XGBoost** - Gradient-boosted decision trees designed to handle both regression and classification tasks

Note: Logistic regression has already been covered in a previous lab session

The boilerplate can be found here: