**X** – response variable (also called a dependent, criterion or outcome variable)

**Y** – predictor variable (also called independent or explanatory variable)

Ordinary least squares (**OLS**) regression: simple linear regression, polynomial regression, and multiple linear regression.

**Simple linear**: Predicting a quantitative response variable from a quantitative explanatory variable. When the regression model contains on dependent variable and one independent variable.

**Polynomial linear**: Predicting a quantitative response variable from a quantitative explanatory variable, where the relationship is modeled as an *n*th order polynomial.

When there’s one independent variable but powers of the variable are included (eg. X, X^2, X^3)

**Multiple linear**: Predicting a quantitative response variable from two or more explanatory variable.

When there’s more than one dependent variable.

**Scatter plot**: can help visualize any linear relationships between the dependent variable and independent variables.

**Box Plot:** Check for outliers

**Density Plot:** Checks if the response (dependent) variable is close to normality