

Glossary:

Regression: Regression is the directional relationship between response variable and factors (regressors) influencing the response variables.

Simple linear regression : A simple linear regression model has one regressor (X) which influences the response variable (Y) and it has the representation

$$Y = \alpha + \beta X + \epsilon,$$

Error variable: This is an unobservable random variable term in the regression model representing the sum effect of all those factors which effect the response variable but they are not included in the model.

Residual: The residual is the difference between Actual observation Y_i and the value predicted from the line of best fit.

Coefficient of determination R^2 is the proportion of variation in the dependent variable explained by the regressor.

Least squares: Least squares method is a method of estimation of model parameters obtained by minimising error sum of squares.