Simple linear Regression

Profit estimation of a company

Venture capital firm is to try to understand which companies should invest

**A Practical approach to Simple Linear Regression**

Simple Linear Regression is a statistical method that allows us to summarize and study relationships between two continuous (quantitative) variables. One variable denoted x is regarded as an independent variable and other one denoted y is regarded as a dependent variable. It is assumed that the two variables are linearly related. Hence, we try to find a linear function that predicts the response value (y) as accurately as possible as a function of the feature or independent variable (x). The simplest form of the regression equation with one dependent and one independent variable is defined by the formula:

***y = c + b \* x****where:****y****= estimated dependent variable score,****c****= constant, b = regression coefficient, and****x****= score on the independent variable.*

**Dependent Variable**is also called as outcome variable, criterion variable, endogenous variable, or regress and. **Independent Variable** is also called as exogenous variables, predictor variables, or regressors. The overall idea of regression is to examine two things –

Does a set of predictor variables do a good job in predicting an outcome (dependent) variable.

Independent Variable:

A variable whose value do not change by the effect of the other variable and is used to manipulate dependent variable is called Independent variable

Dependent Variable:

A value whose value changes when there is any manipulation in the variable is called Dependent variable