	Correlation	Regression
Meaning	Correlation is a statistical measure which determines a co-relationship or association of two variables.	Regression describes how an independent variable (x) is numerically related to a dependent variable (y).
Main purpose	Correlation analysis lets experimenters know the association or the absence of the relationship between two variables under study; if the variables are correlated, it allows measuring the strength of their association.	Regression analysis helps determine a functional relationship between two variables so as to estimate the unknown variable with the help of known variable(s) and make future projections on events.
Objective	To find a numerical value that expresses the relationship between the variables.	To estimate the values of a random variable on the basis of the values of a fixed variable.
Usage	Represents the linear relationship between two variables.	Fits the best line and estimates one variable on the basis of another variable.
Nature of variables	The variables are not designated as dependent or independent.	One variable is dependent and another variable is independent.
Indicates	Correlation coefficient indicates the extent to which two variables move together.	Regression indicates the impact of a unit change in the known variable on the estimated variable.
Range	Correlation coefficients can range from -1.00 to +1.00.	In regression analysis, if byx > 1, then bxy < 1.
Nature of coefficient	The correlation coefficient is symmetrical and mutual.	The regression coefficient is not
Exceptional cases	Non-sense correlation may exist in the correlation analysis.	Non-sense regression doesn't exist in regression analysis.
Association	The correlation coefficient measures the extent and direction of a linear association between two variables.	Linear regression allows experimenters to describe one variable as a linear function of another variable.
Relationship	Correlation is confined to the linear relationship between variables only.	Regression studies linear and non-linear relationships.
Scope	Correlation analysis has limited applications.	Regression analysis has wider applications.