

LINEAR REGRESSION

- Linear regression models the relationship between two variables by fitting a linear equation to observed data. One variable is considered to be an explanatory variable, and the other is considered to be a dependent variable.
- A linear regression line has an equation of the form $Y = a + bX$, where X is the explanatory variable and Y is the dependent variable. The slope of the line is b , and a is the intercept (the value of y when $x = 0$).
- Three major uses for regression analysis are (1) determining the strength of predictors, (2) forecasting an effect, and (3) trend forecasting.
- The red line below shows the fitting line. Points in this line denote the best approximation possible:

