Let’s consider we have simple linear regression with one independent variable (X1) and one dependent variable (y). R2 is one way to check model performance. R2 shows the variability in (y) explained by (X1). In simple words if R2 is 0.85 so with X1 85% of variation is explained in (y).

**Problem with R square**

* Now let’s say we add one more independent variable (X2), R2 will increase even though there is no relationship between independent variable (X2) and dependent variable (y) to solve this problem there is something called Adjusted R2.

**Adjusted R Square**

* Adjusted R square does not increase with addition of insignificant variable rather it decreases. Adjusted R square only increases when significant variable is added.

Hence Adjusted R square is more reliable then R square.