Regression Analysis

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## Multiple Linear Equation

This Assignment is a Simple Linear Regression using an example of Ozone Layer, with small dataset. The factors affecting ozone layer are Temperature, solar, wind. We are looking to find out Multiple R-squared Value.

setwd("C:/Users/SUNIL.NEGI/Documents")  
mydata<-read.csv("ozone\_data.csv")  
summary(lm(Ozone ~ Temp+Wind+Temp\*Wind, data = mydata))

##   
## Call:  
## lm(formula = Ozone ~ Temp + Wind + Temp \* Wind, data = mydata)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -40.930 -11.193 -3.034 8.193 97.456   
##   
## Coefficients:  
## Estimate Std. Error t value Pr(>|t|)   
## (Intercept) -239.8918 48.6200 -4.934 2.97e-06 \*\*\*  
## Temp 4.0005 0.5935 6.741 8.26e-10 \*\*\*  
## Wind 13.5975 4.2835 3.174 0.001961 \*\*   
## Temp:Wind -0.2173 0.0545 -3.987 0.000123 \*\*\*  
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 20.37 on 107 degrees of freedom  
## Multiple R-squared: 0.6355, Adjusted R-squared: 0.6253   
## F-statistic: 62.19 on 3 and 107 DF, p-value: < 2.2e-16