

Predictive Analytics using Simple Linear Regression to predict the price of a house if the square footage is 1800

Independent Variable (X) = Squarefeet  
Dependent Variable (Y) = Price

Here,  
Line of Regresssion is -->  $Y = mx + c$   
i.e., Price =  $m$  (Squarefeet) +  $c$   
where ,  $m$  = Slope &  $c$  = Intercept

After using regression , we got ---

Slope = 0.117  
& Intercept = - 66.544

Now,  
Putting all the values in Regression equation we get

Predicted Price =  $0.11(1800) - 66.54$   
= 145.3027

Therefore,

Predicted Price for 1800 square footage is Rs. 145.3027

Insight Since R Square is 0.49, it means that the model is 49% good. Good in the sense that we have less number of data, if we have a large number of data our model will be more good. This is about the accuracy of the model i.e., the prediction accuracy is 49% good.

SUMMARY OUTPUT

Regression Statistics								
Multiple R	0.701467							
R Square	0.492056	49% good						
Adjusted R	0.482649							
Standard Error	75.68874							
Observations	56							

ANOVA								
	df	SS	MS	F	Significance F			
Regression	1	299677.8	299677.8	52.31088	1.73E-09			
Residual	54	309354.4	5728.786					
Total	55	609032.3						

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-66.5448	25.40498	-2.61936	0.011412	-117.479	-15.6109	-117.479	-15.6109
X Variable 1	0.117693	0.016273	7.232626	1.73E-09	0.085069	0.150317	0.085069	0.150317