

SUMMARY OUTPUT

Multiple_regression_analysis

Regression Statistics	
Multiple R	0.849011
R Square	0.720819
Adjusted R Square	0.712273
Standard Error	4.92534
Observations	506

ANOVA

	df	SS	MS	F	Significance F
Regression	15	30690.84	2046.056	84.34225	4.2E-125
Residual	490	11886.9	24.25897		
Total	505	42577.74			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-6.49856	5.264068	-1.23451	0.217603	-16.8415	3.844367	-16.8415	3.844367
crime_rate	0.009711	0.348185	0.02789	0.977761	-0.67441	0.69383	-0.67441	0.69383
resid_area	-0.04087	0.057585	-0.70982	0.478155	-0.15402	0.072269	-0.15402	0.072269
air_qual	-15.8974	4.003793	-3.97058	8.24E-05	-23.7641	-8.03068	-23.7641	-8.03068
room_num	4.019016	0.426606	9.420907	1.76E-19	3.180813	4.857219	3.180813	4.857219
age	-0.00571	0.013606	-0.42001	0.674665	-0.03245	0.021019	-0.03245	0.021019
avg_dist	-1.21864	0.188933	-6.45013	2.68E-10	-1.58986	-0.84742	-1.58986	-0.84742
teachers	1.007001	0.122098	8.247446	1.5E-15	0.767099	1.246902	0.767099	1.246902
poor_prop	-0.57727	0.052695	-10.955	3.95E-25	-0.68081	-0.47374	-0.68081	-0.47374
n_hos_beds	0.329221	0.152239	2.162532	0.03106	0.0301	0.628342	0.0301	0.628342
n_hot_rooms	0.091864	0.082172	1.117949	0.264137	-0.06959	0.253316	-0.06959	0.253316
rainfall	0.016119	0.017839	0.90358	0.366662	-0.01893	0.051168	-0.01893	0.051168
Airpot_Yes	1.131516	0.454266	2.490866	0.013073	0.238966	2.024066	0.238966	2.024066
River	-0.29132	0.546656	-0.53291	0.594337	-1.3654	0.78276	-1.3654	0.78276
Lake	0.264086	0.641963	0.411373	0.680979	-0.99725	1.525426	-0.99725	1.525426
Lake And River	-0.68756	0.714023	-0.96293	0.336057	-2.09048	0.715369	-2.09048	0.715369

Prediction of 19 unit of price

Upper 95.0%

3.844367		-6.49856
0.69383	0.04632	0.00045
0.072269	41.93	-1.71388
-8.03068	0.573	-9.10921
4.857219	6.03	24.23467
0.021019	80.8	-0.46175
-0.84742	2.505	-3.05269
1.246902	19	19.13301
-0.47374	7.88	-4.5489
0.628342	10.28	3.384393
0.253316	10.152	0.932599
0.051168	45	0.725336
2.024066	1	1.131516
0.78276	0	0
1.525426	0	0
0.715369	0	0
	24.15698	

So, the model is predicting 24.156 unite for the value of house.