

Data

Multiple Linear Regression Output

Variable Name	Description
age	The age of a home in years.
home_sqft	The size of a home's floor plan in square feet.
lot_sqft	The size of a home's lot in square feet.
stories	The number of floors in a home.
rooms	The number of rooms in a home.
grocery	The distance of a home from its nearest grocery store in miles.
school	The quality rating (%) of the closest school to a home.
crime	The crime rating (%) of the home's neighborhood.
gated	Indicates if the home's neighborhood is gated.
location	The type of area where the home is located.
urban	Indicates if the home is within city limits.
suburban	Indicates if the home is within the suburbs.
rural	Indicates if the home is in the country / within the outskirts of the city.
value	The value of the home in thousands of dollars.
renovated	Indicates if the home has been renovated.

home	age	home_sqft	lot_sqft	stories	rooms	grocery	school	crime	gated	location	urban	suburban	rural	value	renovated
1	15	2189	6733	2	4	4.79	78	3.70	1	suburban	0	1	0	322.59	0
2	33	1288	2935	2	2	2.35	88	4.40	1	urban	1	0	0	155.87	1
3	31	2250	7675	2	4	4.05	60	5.06	1	suburban	0	1	0	413.43	1
4	30	1881	7102	2	3	3.02	60	2.14	0	suburban	0	1	0	340.36	0
5	51	2155	7142	2	4	1.59	60	4.80	0	urban	1	0	0	472.13	1
6	21	1810	6883	1	3	3.48	76	4.70	0	rural	0	0	1	234.69	0
7	30	1885	6374	1	3	1.99	78	3.72	0	suburban	0	1	0	299.15	0
:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
73	17	1862	6501	2	3	2.74	44	5.64	1	rural	0	0	1	205.96	0
74	45	1872	6387	2	3	4.49	100	4.17	0	urban	1	0	0	461.84	1
75	24	1690	6571	1	3	4.30	60	3.04	1	urban	1	0	0	419.42	0
76	14	2386	8569	1	4	4.36	78	3.89	1	urban	1	0	0	589.25	1
77	35	1707	6302	1	3	3.38	54	4.31	0	urban	1	0	0	425.25	1
78	58	1907	6547	2	3	4.23	82	3.63	0	suburban	0	1	0	444.63	1
79	34	1931	7151	1	3	4.54	64	3.89	0	urban	1	0	0	474.20	1
80	59	1729	6308	1	3	4.51	32	4.35	0	suburban	0	1	0	284.52	0

Descriptive Statistics						
Variable Name	Mean	Std. Dev	Sum	Median	Minimum	Maximum
age	34.26	13.976	2741.00	34.00	3.00	65.00
home_sqft	1980.28	449.703	158422.00	1900.50	1109.00	2927.00
lot_sqft	6520.24	1848.169	521619.00	6447.50	2494.00	10998.00
stories	1.59	0.520	127.00	2.00	1.00	3.00
rooms	3.46	0.927	277.00	3.00	2.00	5.00
grocery	3.93	1.324	314.11	3.72	1.06	6.76
school	65.53	16.358	5242.00	63.00	32.00	100.00
crime	3.54	1.047	283.26	3.49	1.29	5.66
gated	0.24	0.428	19.00	0.00	0.00	1.00
urban	0.58	0.497	46.00	1.00	0.00	1.00
suburban	0.26	0.443	21.00	0.00	0.00	1.00
rural	0.16	0.371	13.00	0.00	0.00	1.00
value	377.48	135.836	30198.01	358.93	102.66	707.62
renovated	0.35	0.480	28.00	0.00	0.00	1.00

Models

SUMMARY OUTPUT

Regression Statistics					
Multiple R					
R Square					
Adjusted R Square	0.8358				
Standard Error	55.047				
Observations	80				
ANOVA					
	df	SS	MS	F	Significance F
Regression		1227368.150			2.28E-30
Residual		230291.625			
Total	79	1457659.775			
	Coefficients	Standard Error	t Stat	P-value	
Intercept	-120.752	29.482		0.0001	
home_sqft	0.236	0.014		1.98E-27	
urban	90.561	14.503		2.24E-08	
rural	-130.084	19.680		4.72E-09	

SUMMARY OUTPUT

Regression Statistics					
Multiple R					
R Square					
Adjusted R Square	0.9230				
Standard Error	37.700				
Observations	80				
ANOVA					
	df	SS	MS	F	Significance F
Regression		1349643.829			7.65E-43
Residual		108015.947			
Total	79	1457659.775			
	Coefficients	Standard Error	t Stat	P-value	
Intercept	-50.368	16.745		0.0036	
lot_sqft	0.062	0.002		5.94E-40	
urban	85.398	9.940		8.09E-13	
rural	-146.213	13.562		5.64E-17	

Multiple Linear Regression Output

SUMMARY OUTPUT

Regression Statistics					
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R Square					
Adjusted R Square	0.8358				
Standard Error	55.047				
Observations	80				
ANOVA					
	df	SS	MS	F	Significance F
Regression		1227368.150			2.28E-30
Residual		230291.625			
Total	79	1457659.775			
	Coefficients	Standard Error	t Stat	P-value	
Intercept	-120.752	29.482		0.0001	
home_sqft	0.236	0.014		1.98E-27	
location	-39.523	17.091		1.36E-08	

SUMMARY OUTPUT

Regression Statistics					
Multiple R					
R Square					
Adjusted R Square	0.9230				
Standard Error	37.700				
Observations	80				
ANOVA					
	df	SS	MS	F	Significance F
Regression		1349643.829			7.65E-43
Residual		108015.947			
Total	79	1457659.775			
	Coefficients	Standard Error	t Stat	P-value	
Intercept	-50.368	16.745		0.0036	
lot_sqft	0.062	0.002		5.94E-40	
location	-60.816	11.751		4.04E-13	

Models

SUMMARY OUTPUT

Regression Statistics					
Multiple R					
R Square					
Adjusted R Square	0.2247				
Standard Error	119.604				
Observations	80				
ANOVA					
	df	SS	MS	F	Significance F
Regression		370463.531			5.31E-05
Residual		1087196.244			
Total	79	1457659.775			
	Coefficients	Standard Error	t Stat	P-value	
Intercept	304.966	49.553		3.27E-08	
stories	17.789	26.017		0.4962	
location	20.850	36.906		0.0352	

SUMMARY OUTPUT

Regression Statistics					
Multiple R					
R Square					
Adjusted R Square	0.7844				
Standard Error	63.067				
Observations	80				
ANOVA					
	df	SS	MS	F	Significance F
Regression		1155371.175			6.83E-26
Residual		302288.600			
Total	79	1457659.775			
	Coefficients	Standard Error	t Stat	P-value	
Intercept	-37.626	29.706		0.2092	
rooms	109.849	7.787		6.36E-23	
location	-31.430	19.580		1.85E-07	

Multiple Linear Regression Output

SUMMARY OUTPUT

Regression Statistics					
Multiple R					
R Square					
Adjusted R Square	0.2247				
Standard Error	119.604				
Observations	80				
ANOVA					
	df	SS	MS	F	Significance F
Regression		370463.531			5.31E-05
Residual		1087196.244			
Total	79	1457659.775			
	Coefficients	Standard Error	t Stat	P-value	
Intercept	304.966	49.553		3.27E-08	
stories	17.789	26.017		0.4962	
urban	99.104	31.560		0.0024	
rural	-78.254	42.252		0.0679	

SUMMARY OUTPUT

Regression Statistics					
Multiple R					
R Square					
Adjusted R Square	0.7844				
Standard Error	63.067				
Observations	80				
ANOVA					
	df	SS	MS	F	Significance F
Regression		1155371.175			6.83E-26
Residual		302288.600			
Total	79	1457659.775			
	Coefficients	Standard Error	t Stat	P-value	
Intercept	-37.626	29.706		0.2092	
rooms	109.849	7.787		6.36E-23	
urban	96.623	16.610		1.34E-07	
rural	-128.053	22.550		2.36E-07	

Models

SUMMARY OUTPUT

Regression Statistics					
Multiple R					
R Square					
Adjusted R Square	0.2253				
Standard Error	119.557				
Observations	80				
ANOVA					
	df	SS	MS	F	Significance F
Regression		385627.602			0.0001
Residual		1072032.174			
Total	79	1457659.775			
	Coefficients	Standard Error	t Stat	P-value	
Intercept	204.132	56.349		0.0005	
crime	14.701	13.326		0.2735	
gated	10.934	32.112		0.7344	
urban	174.420	37.732		1.55E-05	
suburban	70.100	42.555		0.1037	

SUMMARY OUTPUT

Regression Statistics	
Multiple R	
R Square	
Adjusted R Square	0.2175
Standard Error	120.159
Observations	80

ANOVA					
	df	SS	MS	F	Significance F
Regression		374794.992			0.0002
Residual		1082864.784			
Total	79	1457659.775			

	Coefficients	Standard Error	t Stat	P-value
Intercept	275.620	46.395		8.29E-08
age	-0.653	0.969		0.5022
gated	17.220	31.701		0.5886
urban	173.806	37.923		1.79E-05
suburban	76.969	42.547		0.0745

Multiple Linear Regression Output

SUMMARY OUTPUT

Regression Statistics	
Multiple R	
R Square	
Adjusted R Square	0.2253
Standard Error	119.557
Observations	80

ANOVA					
	df	SS	MS	F	Significance F
Regression		385627.602			0.0001
Residual		1072032.174			
Total	79	1457659.775			

	Coefficients	Standard Error	t Stat	P-value
Intercept	204.132	56.349		0.0005
crime	14.701	13.326		0.2735
gated	10.934	32.112		0.7344
location	244.520	40.144		0.0518

SUMMARY OUTPUT

Regression Statistics	
Multiple R	
R Square	
Adjusted R Square	0.2175
Standard Error	120.159
Observations	80

ANOVA					
	df	SS	MS	F	Significance F
Regression		374794.992			0.0002
Residual		1082864.784			
Total	79	1457659.775			

	Coefficients	Standard Error	t Stat	P-value
Intercept	275.620	46.395		8.29E-08
age	-0.653	0.969		0.5022
gated	17.220	31.701		0.5886
location	250.776	40.235		0.0372

Models

SUMMARY OUTPUT

Regression Statistics					
Multiple R					
R Square					
Adjusted R Square		0.2277			
Standard Error		119.371			
Observations		80			
ANOVA					
	df	SS	MS	F	Significance F
Regression		403200.391			0.0002
Residual		1054459.384			
Total	79	1457659.775			
	Coefficients	Standard Error	t Stat	P-value	
Intercept	237.634	91.437		0.0113	
age	-0.526	0.973		0.5901	
school	0.783	0.834		0.3510	
crime	15.850	13.072		0.2292	
urban	107.055	32.148		0.0014	
rural	-68.250	42.716		0.1144	

SUMMARY OUTPUT

Regression Statistics	
Multiple R	
R Square	
Adjusted R Square	0.9252
Standard Error	37.151
Observations	80

ANOVA					
	df	SS	MS	F	Significance F
Regression		1355526.983			3.08E-41
Residual		102132.793			
Total	79	1457659.775			

	Coefficients	Standard Error	t Stat	P-value
Intercept	-78.019	21.700		0.0006
lot_sqft	0.060	0.005		1.71E-18
rooms	3.760	10.162		0.7124
grocery	6.503	3.172		0.0439
urban	87.022	9.853		3.45E-13
rural	-145.146	13.379		5.92E-17

Multiple Linear Regression Output

SUMMARY OUTPUT

Regression Statistics	
Multiple R	
R Square	
Adjusted R Square	0.2277
Standard Error	119.371
Observations	80

ANOVA					
	df	SS	MS	F	Significance F
Regression		403200.391			0.0002
Residual		1054459.384			
Total	79	1457659.775			

	Coefficients	Standard Error	t Stat	P-value
Intercept	237.634	91.437		0.0113
age	-0.526	0.973		0.5901
school	0.783	0.834		0.3510
crime	15.850	13.072		0.2292
location	38.805	37.432		0.0579

SUMMARY OUTPUT

Regression Statistics	
Multiple R	
R Square	
Adjusted R Square	0.9252
Standard Error	37.151
Observations	80

ANOVA					
	df	SS	MS	F	Significance F
Regression		1355526.983			3.08E-41
Residual		102132.793			
Total	79	1457659.775			

	Coefficients	Standard Error	t Stat	P-value
Intercept	-78.019	21.700		0.0006
lot_sqft	0.060	0.005		1.71E-18
rooms	3.760	10.162		0.7124
grocery	6.503	3.172		0.0439
location	-58.124	11.616		1.73E-13