REGRESSION SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.7377
R Square	0.5441
Adjusted R Square	0.5432
Standard Error	6215.7604
Observations	506

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	23243913997	23243913997	601.6178711	5.0811E-88
Residual	504	19472381418	38635677.42		
Total	505	42716295415			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	34553.84	562.63	61.42	3.743E-236	33448.46	35659.22	33448.46	35659.22
LSTAT	-950.05	38.73	-24.53	5.0811E-88	-1026.15	-873.95	-1026.15	-873.95

5(a). It can be inferred from the regression summary that only 54% of the variation can only be explained using the LSTAT variable. For every 1 unit change in LSTAT is leading to 950 units negative change in Average price of the house. The intercept is at 34553.84

5(b). The LSTAT with p-value of 5.08 x 10^-88 is too significant for analysis but only explains 54% of the variance in the Average house price value. Hence, can rely on LSTAT data alone.

RESIDUAL OUTPUT

Observation	*Predicted AVG_PRICE*	*Residuals*
1	29822.5951	-5822.595098
2	25870.38979	-4270.389786
3	30725.14198	3974.858016
4	31760.69578	1639.304221
5	29490.07782	6709.922176
6	29604.08375	-904.0837463
7	22744.72741	155.2725878
8	16360.39575	10739.60425
9	6118.863721	10381.13628
10	18307.99693	592.0030699
11	15125.3316	-125.331595
12	21946.68596	-3046.685955
13	19628.56553	2071.434468
14	26706.43322	-6306.433217
15	24806.33451	-6606.33451
16	26506.92285	-6606.922853
17	28302.51613	-5202.516132
18	20616.61686	-3116.61686
19	23447.76393	-3247.763934
20	23837.28417	-5637.284169
21	14583.80346	-983.8034634
22	21414.65832	-1814.658317