

size	total_bill	tip	Predicted_Tips	Squared_error
2	16.99	1.01	2.629339922	2.622261784
3	10.34	1.66	2.205394027	0.297454645
3	21.01	3.5	3.194645331	0.093241474
2	23.68	3.31	3.249592146	0.003649109
4	24.59	3.61	3.719156871	0.011915223
4	25.29	4.71	3.784056207	0.857371908
2	8.77	2	1.867236294	0.017626202
4	26.88	3.12	3.931470412	0.65848423
2	15.04	1.96	2.448548916	0.238680043
2	14.78	3.23	2.424443448	0.648921359
2	10.27	1.71	2.006306299	0.087797423
4	35.26	5	4.708408175	0.085025792
2	15.42	1.57	2.483779984	0.834993858
4	18.43	3	3.148042716	0.021916646
2	14.83	3.02	2.429079115	0.349187493
2	21.58	3.92	3.054894138	0.748408152
3	10.33	1.67	2.204466893	0.28565486
3	16.29	3.71	2.757038381	0.908135847
3	16.97	3.5	2.82008345	0.462286515
3	20.65	3.35	3.16126853	0.035619568
2	17.92	4.08	2.715563326	1.861687438
2	20.29	2.75	2.935293934	0.034333842
2	15.77	2.23	2.516229651	0.081927413
4	39.42	7.58	5.094095656	6.179720406
2	19.82	3.18	2.891718666	0.083106128
4	17.81	2.34	3.090560447	0.563340985
2	13.37	2	2.293717643	0.086270054
2	12.69	2	2.230672574	0.053209836
2	21.7	4.3	3.066019739	1.522707285
2	19.65	3	2.875957398	0.015386567
2	9.55	1.45	1.939552696	0.239661842
4	18.35	2.5	3.140625649	0.410401222

MULTIPLE LINEAR

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.684009729
R Square	0.467869309
Adjusted R Square	0.463453286
Standard Error	1.013505967
Observations	244

ANOVA

	df	SS	MS
Regression	2	217.6586401	108.829
Residual	241	247.553837	1.02719
Total	243	465.212477	

	Coefficients	Standard Error	t Stat
Intercept	0.668944741	0.193609331	3.45513
size	0.192597794	0.085314557	2.2575
total_bill	0.092713337	0.009114682	10.1719

So, Predicted_Tips = 0.193 * size

RMSE

1.007

2	15.06	3	2.450403182	0.302056662
4	20.69	2.45	3.357574857	0.823692122
2	17.78	3.27	2.702583458	0.321961532
3	24.06	3.6	3.477421008	0.015025609
3	16.31	2	2.758892648	0.575918051
3	16.93	3.07	2.816374917	0.064325683
3	18.69	2.31	2.979550389	0.448297724
3	31.27	5	4.145884167	0.729513857
3	16.04	2.24	2.733860047	0.243897746
2	17.46	2.54	2.672915191	0.017666448
2	13.94	3.06	2.346564245	0.508990576
2	9.68	1.32	1.95160543	0.398925419
4	30.4	5.6	4.257821358	1.801443507
2	18.29	3	2.74986726	0.062566387
2	22.23	5	3.115157807	3.552630091
4	32.4	6	4.443248032	2.423476691
3	28.55	2.05	3.893703891	3.399244036
2	18.04	3	2.726688926	0.074698943
2	12.54	2.5	2.216765573	0.08022174
2	10.29	2.6	2.008160566	0.350273916
4	34.81	5.2	4.666687174	0.284422571
2	9.94	1.56	1.975710898	0.17281555
4	25.56	4.34	3.809088808	0.281866694
2	19.49	3.51	2.861123264	0.421041018
4	38.01	3	4.963369851	3.854821173
2	26.41	1.5	3.502699555	4.010805509
2	11.24	1.76	2.096238236	0.113056151
4	48.27	6.73	5.914608687	0.664862993
2	20.29	3.21	2.935293934	0.075463423
2	13.81	2	2.334511511	0.111897951
2	11.02	1.98	2.075841301	0.009185555
4	18.29	3.76	3.135062849	0.390546443
3	17.59	2.64	2.877565719	0.056437471

3	20.08	3.15	3.108421928	0.001728736
2	16.45	2.47	2.57927472	0.011940965
1	3.07	1	1.146172479	0.021366394
2	20.23	2.01	2.929731134	0.845905358
2	15.01	2.09	2.445767515	0.126570525
2	12.02	1.97	2.168554638	0.039423944
3	17.07	3	2.829354784	0.02911979
2	26.86	3.14	3.544420557	0.163555987
2	25.28	5	3.397933485	2.566617119
2	14.73	2.2	2.419807781	0.048315461
2	10.51	1.25	2.0285575	0.60615178
2	17.92	3.08	2.715563326	0.13281409
4	27.2	4	3.96113868	0.001510202
2	22.76	3	3.164295876	0.026993135
2	17.29	2.71	2.657153923	0.002792708
2	19.44	3	2.856487598	0.02059581
2	16.66	3.4	2.598744521	0.642010342
1	10.07	1.83	1.795165837	0.001213419
2	32.68	5	4.084012177	0.839033691
2	15.98	2.03	2.535699452	0.255731936
4	34.83	5.17	4.66854144	0.251460687
2	13.03	2	2.262195109	0.068746275
2	18.28	4	2.748940127	1.565150806
2	24.71	5.85	3.345086883	6.274589725
2	21.16	3	3.015954537	0.000254547
2	28.97	3	3.740045698	0.547667635
2	22.49	3.5	3.139263275	0.130130985
2	5.75	1	1.587242016	0.344853186
2	16.32	4.3	2.567221987	3.002519643
2	22.75	3.25	3.163368743	0.007504975
4	40.17	4.73	5.163630659	0.188035548
2	27.28	4	3.583360158	0.173588758
2	12.03	1.5	2.169481772	0.448205843

2	21.01	3	3.002047536	4.19241E-06
2	12.46	1.5	2.209348507	0.503175304
2	11.35	2.5	2.106436703	0.154892069
2	15.38	3	2.48007145	0.270325697
3	44.3	2.5	5.353938946	8.144967506
2	22.42	3.48	3.132773341	0.120566352
2	20.92	4.08	2.993703336	1.180040442
2	15.36	1.64	2.478217183	0.702608046
2	20.49	4.06	2.953836601	1.223597465
2	25.21	4.29	3.391443551	0.807403692
2	18.24	3.76	2.745231593	1.029754919
2	14.31	4	2.38086818	2.621587852
2	14	3	2.352127045	0.419739366
1	7.25	1	1.533714227	0.284850876
3	38.07	4	4.776334857	0.60269581
2	23.95	2.55	3.274624747	0.525081024
3	25.71	4	3.630398014	0.136605628
2	17.31	3.5	2.65900819	0.707267224
4	29.93	5.07	4.21424609	0.732314755
2	10.65	1.5	2.041537367	0.29326272
2	12.43	1.8	2.206567106	0.165296812
4	24.08	2.92	3.671873069	0.565313112
2	11.69	2.31	2.137959237	0.029598024
2	13.42	1.68	2.29835331	0.382360816
2	14.26	2.5	2.376232513	0.015318391
2	15.95	2	2.532918052	0.28400165
2	12.48	2.52	2.211202773	0.095355727
6	29.8	4.2	4.587388945	0.150070195
2	8.52	1.48	1.844057959	0.132538198
2	14.52	2	2.40033798	0.160270499
2	11.38	2	2.109218103	0.011928594
3	22.82	2.18	3.36245647	1.398203305
2	19.08	1.5	2.823110796	1.750622179

2	20.27	2.83	2.933439667	0.010699765
2	11.17	1.5	2.089748302	0.34780306
2	12.26	2	2.190805839	0.036406868
2	18.26	3.25	2.74708586	0.252922632
2	8.51	1.25	1.843130826	0.351804177
2	10.33	2	2.011869099	0.000140876
2	14.15	2	2.366034046	0.133980923
2	16	2	2.537553719	0.288964001
2	13.16	2.75	2.274247842	0.226340116
2	17.47	3.5	2.673842324	0.682536506
6	34.3	6.7	5.004598961	2.874384685
5	41.19	5	5.450796057	0.203217085
6	27.05	5	4.332427268	0.445653352
2	16.43	2.3	2.577420454	0.076962108
2	8.35	1.5	1.828296692	0.107778718
3	18.64	1.36	2.974914723	2.607949561
2	11.87	1.63	2.154647638	0.275255144
2	9.78	1.73	1.960876764	0.05330408
2	7.51	2	1.750417489	0.06229143
2	14.07	2.5	2.358616979	0.019989159
2	13.13	2	2.271466442	0.073694029
3	17.26	2.74	2.846970318	0.011442649
4	24.55	2	3.715448338	2.942762999
4	19.77	2	3.272278588	1.618692804
5	29.85	5.14	4.399426817	0.548448639
6	48.17	5	6.290532942	1.665475275
4	25	3.75	3.757169339	5.13994E-05
2	13.39	2.61	2.29557191	0.098865024
4	16.49	2	2.968178843	0.937370272
4	21.5	3.5	3.43267266	0.004532971
2	12.66	2.5	2.227891174	0.074043213
3	16.21	2	2.749621314	0.561932114
2	13.81	2	2.334511511	0.111897951

2	17.51	3	2.677550858	0.103973449
3	24.52	3.48	3.520069143	0.001605536
2	20.76	2.24	2.978869202	0.545927698
4	31.71	4.5	4.379275829	0.014574325
2	10.59	1.61	2.035974567	0.181454331
2	10.63	2	2.0396831	0.001574748
3	50.81	10	5.957502768	16.34178387
2	15.81	3.16	2.519938185	0.409679127
2	7.25	5.15	1.726312022	11.72163937
2	31.85	3.18	4.007060108	0.684028422
2	16.82	4	2.613578655	1.922164146
2	32.9	3.11	4.104409111	0.988849481
2	17.89	2	2.712781926	0.508058073
2	14.48	2	2.396629447	0.157314918
2	9.6	4	1.944188363	4.226361486
2	34.63	3.55	4.264803184	0.510943592
4	34.65	3.68	4.65185304	0.944498331
2	23.33	5.65	3.217142478	5.918795723
3	45.35	3.5	5.451287949	3.807524661
4	23.17	6.5	3.587503933	8.482633342
2	40.55	3	4.813666138	3.289384861
5	20.69	5	3.550172652	2.10199934
3	20.9	3.5	3.184446864	0.099573782
5	30.46	2	4.455981953	6.031847352
3	18.15	3.5	2.929485187	0.325487151
3	23.1	4	3.388416205	0.374034739
2	15.69	1.5	2.508812584	1.017702831
2	19.81	4.19	2.890791532	1.687942643
2	28.44	2.56	3.690907629	1.278952066
2	15.48	2.02	2.489342784	0.220282649
2	16.58	4	2.591327454	1.984358341
2	7.56	1.44	1.755053156	0.099258491
2	10.34	2	2.012796232	0.000163744

4	43.11	5	5.436207869	0.190277305
2	13	2	2.259413708	0.067295472
2	13.51	2	2.30669751	0.094063363
3	18.71	4	2.981404656	1.037536475
2	12.74	2.01	2.235308241	0.050763803
2	13	2	2.259413708	0.067295472
2	16.4	2.5	2.574639054	0.005570988
4	20.53	4	3.342740724	0.431989756
3	16.47	3.23	2.773726782	0.20818525
3	26.59	3.41	3.71198575	0.091195393
4	38.73	3	5.030123454	4.121401238
2	24.27	2.03	3.304293015	1.623822687
2	12.76	2.23	2.237162508	5.13015E-05
3	30.06	2	4.033701029	4.135939876
4	25.89	5.16	3.839684209	1.743233788
4	48.33	9	5.920171487	9.485343667
2	13.27	2.5	2.284446309	0.046463394
3	28.17	6.5	3.858472823	6.977665829
2	12.9	1.1	2.250142375	1.322827482
5	28.15	3	4.241814145	1.54210237
2	11.59	1.5	2.128687903	0.39524848
2	7.74	1.44	1.771741557	0.11005246
4	30.14	3.09	4.233715891	1.308086038
2	12.16	2.2	2.181534505	0.000340974
2	13.42	3.48	2.29835331	1.3962889
1	8.58	1.92	1.657022965	0.069156921
3	15.98	3	2.728297247	0.073822386
2	13.42	1.58	2.29835331	0.516031478
2	16.27	2.5	2.56258632	0.003917047
2	10.09	2	1.989617898	0.000107788
4	20.45	3	3.335323657	0.112441955
2	13.28	2.72	2.285373443	0.188900244
2	22.12	2.88	3.10495934	0.050606705

4	24.01	2	3.665383136	2.773500989
3	15.69	3	2.701410379	0.089155762
2	11.61	3.39	2.13054217	1.586234025
2	10.77	1.47	2.052662967	0.339496133
2	15.53	3	2.493978451	0.256057808
2	10.07	1.25	1.987763631	0.544295176
2	12.6	1	2.222328374	1.494086653
2	32.83	1.17	4.097919178	8.572710712
3	35.83	4.67	4.568656983	0.010270407
3	29.03	5.92	3.938206292	3.9275063
2	27.18	2	3.574088825	2.477755628
2	22.67	2	3.155951676	1.336224276
2	17.82	1.75	2.706291992	0.914494374
2	18.78	3	2.795296795	0.041903402

R REGRESSION ANALYSIS

<i>F</i>	<i>Significance F</i>
105.9481301	9.66509E-34

<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
0.000649806	0.287562197	1.05033	0.287562197	1.050327285
0.024872446	0.024540385	0.36066	0.024540385	0.360655204
1.88092E-20	0.074758723	0.11067	0.074758723	0.110667951

$$e+0.093*\text{total_bill}+0.669$$