

age	sex	bmi	children	smoker	region	charges
19	female	27.9	0	yes	southwest	16884.924
18	male	33.77	1	no	southeast	1725.5523
28	male	33	3	no	southeast	4449.462
33	male	22.705	0	no	northwest	21984.47061
32	male	28.88	0	no	northwest	3866.8552
31	female	25.74	0	no	southeast	3756.6216
46	female	33.44	1	no	southeast	8240.5896
37	female	27.74	3	no	northwest	7281.5056
37	male	29.83	2	no	northeast	6406.4107
60	female	25.84	0	no	northwest	28923.1515
25	male	26.22	0	no	northeast	2721.03225
62	female	26.29	0	yes	southeast	27808.63225
23	male	34.4	0	no	southwest	182.3511
56	female	39.82	0	no	southeast	11090.19215
27	male	42.13	0	yes	southeast	39611.83515
19	male	24.6	1	no	southwest	183.3511
52	female	30.78	1	no	northeast	10797.19215
23	male	23.845	0	no	northeast	2395.5523
56	male	40.3	0	no	southwest	1060.062
30	male	35.3	0	yes	southwest	3683.3511
60	female	36.005	0	no	northeast	13228.63225
30	female	32.4	1	no	southwest	414.462
18	male	34.1	0	no	southeast	113.3511
34	female	31.92	1	yes	northeast	37701.03225
37	male	28.025	2	no	northwest	6203.5523
59	female	27.72	3	no	southeast	14001.03225
63	female	23.085	0	no	northeast	14451.83515
55	female	32.775	2	no	northwest	12268.63225
23	male	17.385	1	no	northwest	2775.19215
31	male	36.3	2	yes	southwest	38711.03225
22	male	35.6	0	yes	southwest	35585.576
18	female	26.315	0	no	northeast	2198.18985
19	female	28.6	5	no	southwest	4687.797
63	male	28.31	0	no	northwest	13770.0979
28	male	36.4	1	yes	southwest	51194.55914
19	male	20.425	0	no	northwest	1625.43375
62	female	32.965	3	no	northwest	15612.19335
26	male	20.8	0	no	southwest	2302.3
35	male	36.67	1	yes	northeast	39774.2763
60	male	39.9	0	yes	southwest	48173.361
24	female	26.6	0	no	northeast	3046.062
31	female	36.63	2	no	southeast	4949.7587
41	male	21.78	1	no	southeast	6272.4772
37	female	30.8	2	no	southeast	6313.759

Histogram of charges

The scatter plot displays the relationship between BMI (x-axis) and charges (y-axis). The x-axis ranges from 15 to 45, and the y-axis ranges from 0 to 60,000. The data points are blue dots. There is a general upward trend, indicating that higher BMI values are associated with higher charges. The density of points is highest in the lower BMI and lower charges region, with a few points extending to higher BMI and higher charges values.

38	male	37.05	1	no	northeast	6079.6715						
55	male	37.3	0	no	southwest	20630.28351						
18	female	38.665	2	no	northeast	3393.35635						
28	female	34.77	0	no	northwest	3556.9223						
60	female	24.53	0	no	southeast	12629.8967						
36	male	35.2	1	yes	southeast	38709.176						
18	female	35.625	0	no	northeast	2211.13075						
21	female	33.63	2	no	northwest	3579.8287						
48	male	28	1	yes	southwest	23568.272						
36	male	34.43	0	yes	southeast	37742.5757						
40	female	28.69	3	no	northwest	8059.6791						
58	male	36.955	2	yes	northwest	47496.49445						
58	female	31.825	2	no	northeast	13607.36875						
18	male	31.68	2	yes	southeast	34303.1672						
53	female	22.88	1	yes	southeast	23244.7902						
34	female	37.335	2	no	northwest	5989.52365						
43	male	27.36	3	no	northeast	8606.2174						
25	male	33.66	4	no	southeast	4504.6624						
64	male	24.7	1	no	northwest	30166.61817						
28	female	25.935	1	no	northwest	4133.64165						
20	female	22.42	0	yes	northwest	14711.7438						
19	female	28.9	0	no	southwest	1743.214						
61	female	39.1	2	no	southwest	14235.072						
40	male	26.315	1	no	northwest	6389.37785						
40	female	36.19	0	no	southeast	5920.1041						
28	male	23.98	3	yes	southeast	17663.1442						
27	female	24.75	0	yes	southeast	16577.7795						
31	male	28.5	5	no	northeast	6799.458						
53	female	28.1	3	no	southwest	11741.726						
58	male	32.01	1	no	southeast	11946.6259						
44	male	27.4	2	no	southwest	7726.854						
57	male	34.01	0	no	northwest	11356.6609						
29	female	29.59	1	no	southeast	3947.4131						
21	male	35.53	0	no	southeast	1532.4697						
22	female	39.805	0	no	northeast	2755.02095						
41	female	32.965	0	no	northwest	6571.02435						
31	male	26.885	1	no	northeast	4441.21315						
45	female	38.285	0	no	northeast	7935.29115						
22	male	37.62	1	yes	southeast	37165.1638						
48	female	41.23	4	no	northwest	11033.6617						
37	female	34.8	2	yes	southwest	39836.519						
45	male	22.895	2	yes	northwest	21098.55405						
57	female	31.16	0	yes	northwest	43578.9394						
56	female	27.2	0	no	southwest	11073.176						
46	female	27.74	0	no	northwest	8026.6666						

55	female	26.98	0	no	northwest	11082.5772						
21	female	39.49	0	no	southeast	2026.9741						
53	female	24.795	1	no	northwest	10942.13205						
59	male	29.83	3	yes	northeast	30184.9367						
35	male	34.77	2	no	northwest	5729.0053						
64	female	31.3	2	yes	southwest	47291.055						
28	female	37.62	1	no	southeast	3766.8838						
54	female	30.8	3	no	southwest	12105.32						
55	male	38.28	0	no	southeast	10226.2842						
56	male	19.95	0	yes	northeast	22412.6485						
38	male	19.3	0	yes	southwest	15820.699						
41	female	31.6	0	no	southwest	6186.127						
30	male	25.46	0	no	northeast	3645.0894						
18	female	30.115	0	no	northeast	21344.8467						
61	female	29.92	3	yes	southeast	30942.1918						
34	female	27.5	1	no	southwest	5003.853						
20	male	28.025	1	yes	northwest	17560.37975						
19	female	28.4	1	no	southwest	2331.519						
26	male	30.875	2	no	northwest	3877.30425						
29	male	27.94	0	no	southeast	2867.1196						
63	male	35.09	0	yes	southeast	47055.5321						
54	male	33.63	1	no	northwest	10825.2537						
55	female	29.7	2	no	southwest	11881.358						
37	male	30.8	0	no	southwest	4646.759						
21	female	35.72	0	no	northwest	2404.7338						
52	male	32.205	3	no	northeast	11488.31695						
60	male	28.595	0	no	northeast	30259.99556						
58	male	49.06	0	no	southeast	11381.3254						
29	female	27.94	1	yes	southeast	19107.7796						
49	female	27.17	0	no	southeast	8601.3293						
37	female	23.37	2	no	northwest	6686.4313						
44	male	37.1	2	no	southwest	7740.337						
18	male	23.75	0	no	northeast	1705.6245						
20	female	28.975	0	no	northwest	2257.47525						
44	male	31.35	1	yes	northeast	39556.4945						
47	female	33.915	3	no	northwest	10115.00885						
26	female	28.785	0	no	northeast	3385.39915						
19	female	28.3	0	yes	southwest	17081.08						
52	female	37.4	0	no	southwest	9634.538						
32	female	17.765	2	yes	northwest	32734.1863						
38	male	34.7	2	no	southwest	6082.405						
59	female	26.505	0	no	northeast	12815.44495						
61	female	22.04	0	no	northeast	13616.3586						
53	female	35.9	2	no	southwest	11163.568						
19	male	25.555	0	no	northwest	1632.56445						

20	female	28.785	0	no	northeast	2457.21115					
22	female	28.05	0	no	southeast	2155.6815					
19	male	34.1	0	no	southwest	1261.442					
22	male	25.175	0	no	northwest	2045.68525					
54	female	31.9	3	no	southeast	27322.73386					
22	female	36	0	no	southwest	2166.732					
34	male	22.42	2	no	northeast	27375.90478					
26	male	32.49	1	no	northeast	3490.5491					
34	male	25.3	2	yes	southeast	18972.495					
29	male	29.735	2	no	northwest	18157.876					
30	male	28.69	3	yes	northwest	20745.9891					
29	female	38.83	3	no	southeast	5138.2567					
46	male	30.495	3	yes	northwest	40720.55105					
51	female	37.73	1	no	southeast	9877.6077					
53	female	37.43	1	no	northwest	10959.6947					
19	male	35.55	1	no	southwest	20454.4533					
35	male	33.09	1	no	northwest	21454.5544					
48	male	33.11	0	no	southeast	26044.4546					
32	female	37.145	3	no	northeast	6334.34355					
42	female	23.37	0	yes	northeast	19964.7463					
40	female	25.46	1	no	northeast	7077.1894					
44	male	39.52	0	no	northwest	16948.7008					
48	male	34.42	0	yes	southeast	21223.6758					
18	male	35.175	0	yes	northeast	35518.18025					
30	male	35.53	0	yes	southeast	36950.2567					
50	female	37.83	3	no	southeast	29749.38338					
42	female	36.6	0	yes	northwest	21348.706					
18	female	36.85	0	yes	southeast	36149.4835					
54	male	39.6	1	no	southwest	30450.552					
32	female	39.8	2	no	southwest	25152.134					
37	male	40.64	0	no	northwest	25028.1466					
47	male	38.215	4	no	northeast	30407.08585					
20	female	37	5	no	southwest	24830.63					
32	female	33.155	3	no	northwest	20128.79745					
19	female	31.825	1	no	northwest	27019.27975					
27	male	18.905	3	no	northeast	4827.90495					