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 1 /Users/xingkaiwu/PycharmProjects/Zillow/venv/bin/python /
   Users/xingkaiwu/PycharmProjects/Zillow/explanatory.py
 2 Number of properties: 2985217
 3 Number of property features: 57
 4 Number of 2016 transaction records: 90275
 5
 6      parcelid   logerror  transactiondate
 7 0  11016594     0.0276       2016-01-01
 8 1  14366692    -0.1684       2016-01-01
 9 2  12098116    -0.0040       2016-01-01
10 3  12643413     0.0218       2016-01-02
11 4  14432541    -0.0050       2016-01-02
12 parcelid: 1.0
13 logerror: 1.0
14 transactiondate: 1.0
15 bathroom_cnt: 1.0
16 bedroom_cnt: 1.0
17 fips: 1.0
18 latitude: 1.0
19 longitude: 1.0
20 landuse_type_id: 1.0
21 census_1: 1.0
22 county_id: 1.0
23 room_cnt: 1.0
24 tax_year: 1.0
25 county_landuse_code: 0.9999889227360842
26 tax_parcel: 0.9999889227360842
27 tax_land: 0.9999889227360842
28 tax_property: 0.9999335364165052
29 region_zip: 0.9996122957629465
30 tax_structure: 0.9957906397119911
31 census_2: 0.9932982553309333
32 finished_area_sqft_calc: 0.9926779285516477
33 year_built: 0.9916255884796455
34 bathroom_cnt_calc: 0.9869066740515092
35 bathroom_full_cnt: 0.9869066740515092
36 city_id: 0.9800276931597895
37 finished_area_sqft: 0.948169482137912
38 lot_sqft: 0.8875657712545001
39 unit_cnt: 0.646391581279424
40 zoning_description: 0.6459484907227915
41 quality_id: 0.6354361672666852
42 heating_id: 0.6212129603987815
43 neighborhood_id: 0.39891442813625033
44 garage_cnt: 0.3316200498476876
45 garage_sqft: 0.3316200498476876
46 cooling_id: 0.318814732761008
47 story_cnt: 0.22785931874826917
48 pool_cnt: 0.19829410135696482
49 pool_unk_3: 0.18495707560232622
```

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50 bathroom_small_cnt: 0.13302686236499583
51 fireplace_cnt: 0.10641927443921352
52 floor1_sqft: 0.07594572140681252
53 floor1_sqft_unk: 0.07594572140681252
54 total_area: 0.0394793685959568
55 patio_sqft: 0.029310440321240652
56 spa_flag: 0.026197729160897257
57 tax_overdue_flag: 0.019750761561894214
58 tax_overdue_year: 0.019750761561894214
59 pool_unk_2: 0.013337025754638604
60 pool_unk_1: 0.012860703406258655
61 pool_total_size: 0.010733868734422598
62 deck_id: 0.007288839656604818
63 base_total_area: 0.004663528108557187
64 construction_id: 0.0033121019108280254
65 architecture_style_id: 0.0028911658820271395
66 fireplace_flag: 0.0024591525893104403
67 storage_sqft: 0.0010523400720022155
68 basement_sqft: 0.00047632234837995016
69 story_id: 0.00047632234837995016
70 perimeter_area: 0.00036554970922182223
71 framing_id: 0.0001772362226530047
72 count    90275.000000
73 mean         0.011457
74 std          0.161079
75 min         -4.605000
76 25%         -0.025300
77 50%          0.006000
78 75%          0.039200
79 max          4.737000
80 Name: logerror, dtype: float64
81 90275 training examples in total
82 951 with abs(logerror) > 0.6
83 /Users/xingkaiwu/PycharmProjects/Zillow/explanatory.py:63:
   FutureWarning: Indexing with multiple keys (implicitly
   converted to a tuple of keys) will be deprecated, use a
   list instead.
84    print(train_2016.groupby('month')['month', 'logerror'].
   median())
85         month  logerror
86 month
87 1           1    0.0090
88 2           2    0.0080
89 3           3    0.0010
90 4           4    0.0030
91 5           5    0.0030
92 6           6    0.0040
93 7           7    0.0050
94 8           8    0.0050
95 9           9    0.0100
```

```
 96 10         10      0.0100
 97 11         11      0.0119
 98 12         12      0.0100
 99            quarter  logerror
100 quarter
101 1                1     0.0050
102 2                2     0.0030
103 3                3     0.0070
104 4                4     0.0109
105 /Users/xingkaiwu/PycharmProjects/Zillow/explanatory.py:64
    : FutureWarning: Indexing with multiple keys (implicitly
    converted to a tuple of keys) will be deprecated, use a
    list instead.
106   print(train_2016.groupby('quarter')['quarter', 'logerror
    '].median())
107
108 Process finished with exit code 0
109
```