

Assignment 9

Australian Housing Prices prediction This dataset can be used to predict housing prices in Australia. This dataset can be used to find relationships between housing prices and location. This dataset can be used to find relationships between housing prices and features such as size, number of bedrooms, and number of bathrooms Hint: RealEstateAU_1000_Samples.csv file Instructions:-----
 -----1. Use Lifecycle of Data Science 2. Use necessary data Preprocess techniques 3. Use various Regression and Classification techniques for comparison 4. Use metrics for regression and classification when needed. 5. Use various Pipeline/Hyperparameter tuning techniques for improving performance

```
In [12]: import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
from sklearn.preprocessing import StandardScaler
from sklearn.pipeline import Pipeline
from sklearn.linear_model import LinearRegression
import sklearn.metrics as metrics
from sklearn.model_selection import train_test_split
from sklearn.metrics import r2_score
```

```
In [13]: df = pd.read_csv("Documents/Data science Material JNTU/Assignments/Assignment 9/JNTUH ML DL assignment 2/RealEstateAU_1000_Samples.csv")
df.head()
```

Out[13]:

	index	TID	breadcrumb	category_name	property_type	building_size	land_size	preferred_size	open_date	listing_agency
0	0	1350988	Buy>NT>DARWIN CITY	Real Estate & Property for sale in DARWIN CITY...	House	NaN	NaN	NaN	Added 2 hours ago	Professionals - DARWIN CITY
1	1	1350989	Buy>NT>DARWIN CITY	Real Estate & Property for sale in DARWIN CITY...	Apartment	171m ²	NaN	171m ²	Added 7 hours ago	Nick Mousellis Real Estate - Eview Group Member
2	2	1350990	Buy>NT>DARWIN CITY	Real Estate & Property for sale in DARWIN CITY...	Unit	NaN	NaN	NaN	Added 22 hours ago	Habitat Real Estate - THE GARDENS
3	3	1350991	Buy>NT>DARWIN CITY	Real Estate & Property for sale in DARWIN CITY...	House	NaN	NaN	NaN	Added yesterday	Ray White - NIGHTCLIFF
4	4	1350992	Buy>NT>DARWIN CITY	Real Estate & Property for sale in DARWIN CITY...	Unit	201m ²	NaN	201m ²	Added yesterday	Carol Need Real Estate - Fannie Bay

5 rows x 27 columns

```
In [14]: df.tail()
```

Out[14]:

	index	TID	breadcrumb	category_name	property_type	building_size	land_size	preferred_size	open_date	listing_agency
995	995	1351983	Buy>NT>DARWIN	Real Estate & Property for sale in DARWIN, NT ...	House	NaN	9.17ha	9.17ha	Under offer	United Realt NT - Para
996	996	1351984	Buy>NT>DARWIN	Real Estate & Property for sale in DARWIN, NT ...	House	203m ²	600m ²	600m ²	NaN	Kassio Constructions HOWAR SPRING
997	997	1351985	Buy>NT>DARWIN	Real Estate & Property for sale in DARWIN, NT ...	House	209.6m ²	800m ²	800m ²	NaN	Kassio Constructions HOWAR SPRING
998	998	1351986	Buy>NT>DARWIN	Real Estate & Property for sale in DARWIN, NT ...	House	180m ²	450m ²	450m ²	NaN	Kassio Constructions HOWAR SPRING
999	999	1351987	Buy>NT>DARWIN	Real Estate & Property for sale in DARWIN, NT ...	Unit	120m ²	NaN	120m ²	NaN	Home Zone N - DARWI

5 rows x 27 columns

```
In [15]: df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 1000 entries, 0 to 999
Data columns (total 27 columns):
#   Column                Non-Null Count  Dtype
---  -
0   index                 1000 non-null   int64
1   TID                   1000 non-null   int64
2   breadcrumb            1000 non-null   object
3   category_name         1000 non-null   object
4   property_type         1000 non-null   object
5   building_size         280 non-null    object
6   land_size             533 non-null    object
7   preferred_size        609 non-null    object
8   open_date             302 non-null    object
9   listing_agency       1000 non-null   object
10  price                 1000 non-null   object
11  location_number       1000 non-null   int64
12  location_type         1000 non-null   object
13  location_name         1000 non-null   object
14  address               988 non-null    object
15  address_1             988 non-null    object
16  city                  1000 non-null   object
17  state                 1000 non-null   object
18  zip_code              1000 non-null   int64
19  phone                 1000 non-null   object
20  latitude              0 non-null      float64
21  longitude             0 non-null      float64
22  product_depth         1000 non-null   object
23  bedroom_count         967 non-null    float64
24  bathroom_count        967 non-null    float64
25  parking_count         967 non-null    float64
26  RunDate               1000 non-null   object
dtypes: float64(5), int64(4), object(18)
memory usage: 211.1+ KB
```

```
In [16]: df.shape
```

```
Out[16]: (1000, 27)
```

```
In [17]: df.describe(include='all')
```

```
Out[17]:
```

	index	TID	breadcrumb	category_name	property_type	building_size	land_size	preferred_size	open_date
count	1000.000000	1.000000e+03	1000	1000	1000	280	533	609	302
unique	NaN	NaN	2	2	13	169	346	376	15
top	NaN	NaN	Buy>NT>DARWIN	Real Estate & Property for sale in DARWIN, NT ...	House	81m ²	2.02ha	2.02ha	Under offer
freq	NaN	NaN	816	816	441	6	14	14	214
mean	499.500000	1.351488e+06	NaN	NaN	NaN	NaN	NaN	NaN	NaN
std	288.819436	2.888194e+02	NaN	NaN	NaN	NaN	NaN	NaN	NaN
min	0.000000	1.350988e+06	NaN	NaN	NaN	NaN	NaN	NaN	NaN
25%	249.750000	1.351238e+06	NaN	NaN	NaN	NaN	NaN	NaN	NaN
50%	499.500000	1.351488e+06	NaN	NaN	NaN	NaN	NaN	NaN	NaN
75%	749.250000	1.351737e+06	NaN	NaN	NaN	NaN	NaN	NaN	NaN
max	999.000000	1.351987e+06	NaN	NaN	NaN	NaN	NaN	NaN	NaN

11 rows x 27 columns

```
In [18]: df.isna().sum()
```

```

Out[18]: index          0
        TID            0
        breadcrumb     0
        category_name  0
        property_type  0
        building_size  720
        land_size      467
        preferred_size 391
        open_date      698
        listing_agency 0
        price          0
        location_number 0
        location_type  0
        location_name  0
        address        12
        address_1      12
        city           0
        state          0
        zip_code       0
        phone          0
        latitude       1000
        longitude      1000
        product_depth  0
        bedroom_count  33
        bathroom_count 33
        parking_count  33
        RunDate        0
        dtype: int64

```

```
In [19]: df.columns
```

```

Out[19]: Index(['index', 'TID', 'breadcrumb', 'category_name', 'property_type',
        'building_size', 'land_size', 'preferred_size', 'open_date',
        'listing_agency', 'price', 'location_number', 'location_type',
        'location_name', 'address', 'address_1', 'city', 'state', 'zip_code',
        'phone', 'latitude', 'longitude', 'product_depth', 'bedroom_count',
        'bathroom_count', 'parking_count', 'RunDate'],
        dtype='object')

```

```
In [20]: #dropping unnecessary columns
df.drop(["index", "TID", "breadcrumb", "open_date", "phone", "RunDate"], axis = 1, inplace = True)
```

```
In [21]: df.head()
```

```

Out[21]:
   category_name  property_type  building_size  land_size  preferred_size  listing_agency  price  location_number  location_type  loc
0  Real Estate & Property for sale in DARWIN CITY...  House  NaN  NaN  NaN  Professionals - DARWIN CITY  $435,000  139468611  Buy
1  Real Estate & Property for sale in DARWIN CITY...  Apartment  171m²  NaN  171m²  Nick Mousellis Real Estate - Eview Group Member  Offers Over $320,000  139463755  Buy
2  Real Estate & Property for sale in DARWIN CITY...  Unit  NaN  NaN  NaN  Habitat Real Estate - THE GARDENS  $310,000  139462495  Buy
3  Real Estate & Property for sale in DARWIN CITY...  House  NaN  NaN  NaN  Ray White - NIGHTCLIFF  $259,000  139451679  Buy
4  Real Estate & Property for sale in DARWIN CITY...  Unit  201m²  NaN  201m²  Carol Need Real Estate - Fannie Bay  $439,000  139433803  Buy

```

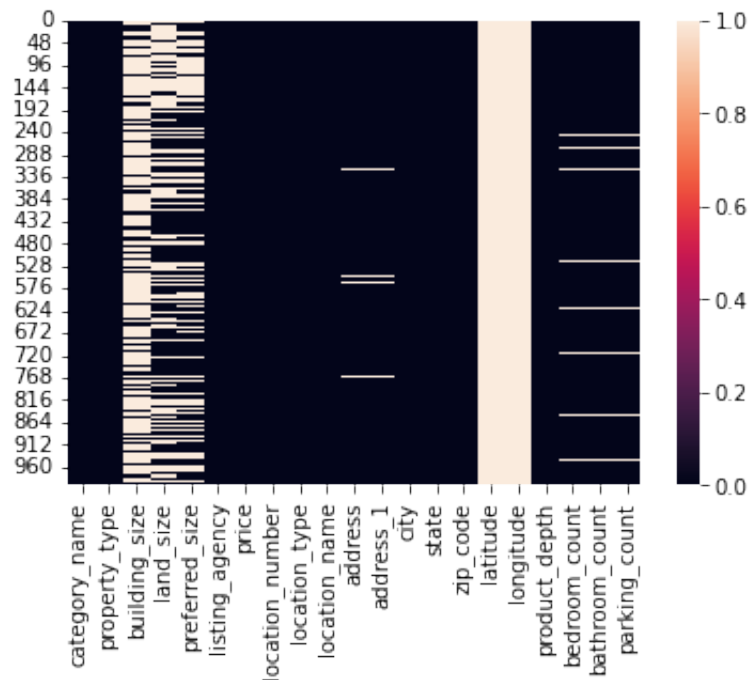
5 rows x 21 columns

```
In [22]: df.isnull().sum()
```

```
Out[22]: category_name      0
property_type      0
building_size     720
land_size         467
preferred_size    391
listing_agency    0
price             0
location_number   0
location_type     0
location_name     0
address           12
address_1         12
city              0
state             0
zip_code          0
latitude          1000
longitude         1000
product_depth     0
bedroom_count    33
bathroom_count   33
parking_count     33
dtype: int64
```

```
In [23]: sns.heatmap(df.isnull())
```

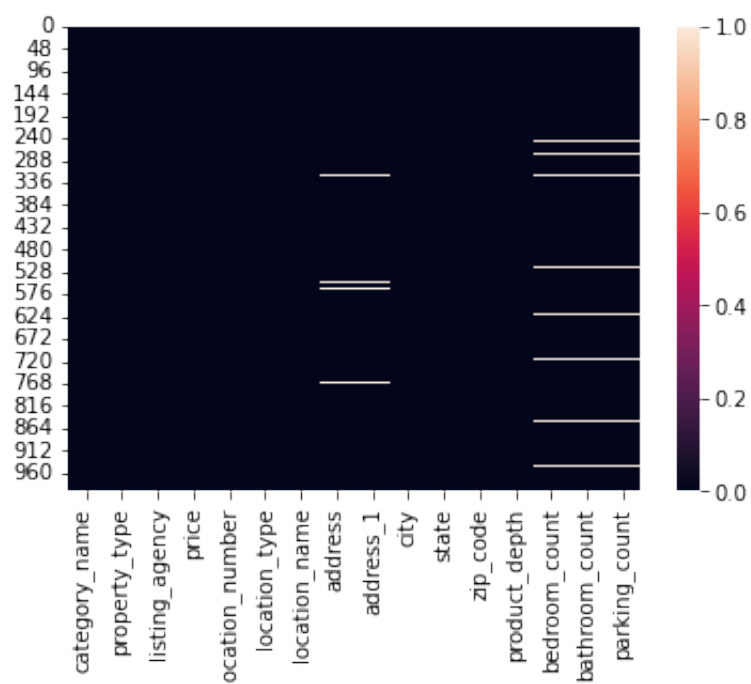
```
Out[23]: <AxesSubplot:>
```



```
In [24]: #The "Building Size", "Land Size" and "Preferred Size", "longitude", "latitude" have too many missing values. It is better to drop them.
df.drop(["preferred_size", "building_size", "land_size"], axis = 1, inplace = True)
df.drop(["longitude", "latitude"], axis = 1, inplace = True)
```

```
In [25]: sns.heatmap(df.isnull())
```

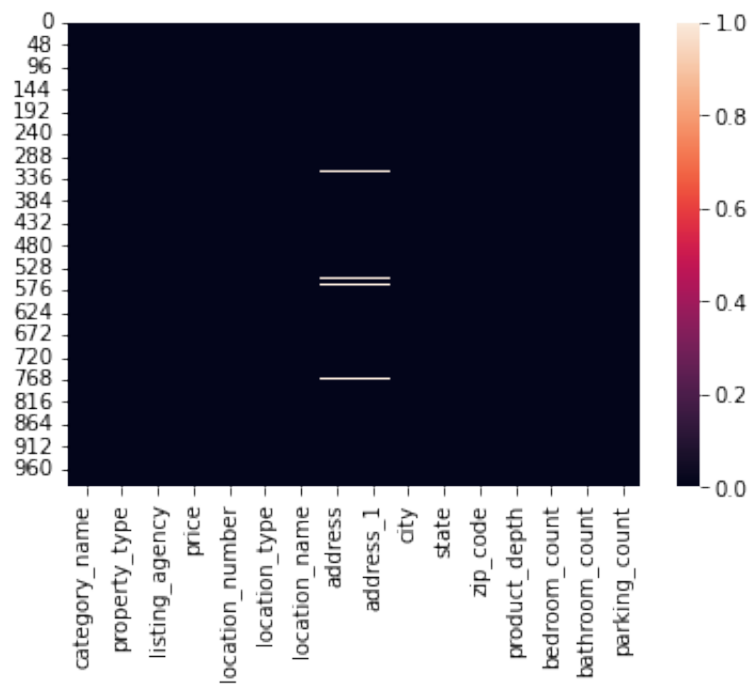
```
Out[25]: <AxesSubplot:>
```



```
In [26]: #Filling missing values with mode for bedroom_count, bathroom_count and parking_count
df["bedroom_count"].fillna(df["bedroom_count"].mode()[0], inplace = True)
df["bathroom_count"].fillna(df["bedroom_count"].mode()[0], inplace = True)
df["parking_count"].fillna(df["bedroom_count"].mode()[0], inplace = True)
```

```
In [27]: sns.heatmap(df.isnull())
```

```
Out[27]: <AxesSubplot:>
```



```
In [28]: df["category_name"].value_counts()
```

```
Out[28]: Real Estate & Property for sale in DARWIN, NT 0801      816
Real Estate & Property for sale in DARWIN CITY, NT 0800      184
Name: category_name, dtype: int64
```

```
In [29]: df["property_type"].value_counts()
```

```
Out[29]: House          441
Unit          230
Apartment     212
Townhouse     38
Residential Land  33
Duplex/Semi-detached  19
Acreage       9
Block Of Units  6
Other         4
Villa         4
Studio        2
Warehouse     1
Lifestyle     1
Name: property_type, dtype: int64
```

```
In [30]: df["listing_agency"].value_counts()
```

```
Out[30]: Real Estate Central - DARWIN CITY      113
Elders Real Estate - Darwin      62
Elders Real Estate - Palmerston   53
Raine & Horne - Darwin      48
First National Real Estate O'Donoghues - Darwin  41
...
Ellis Parker Real Estate - LARRAKEYAH      1
Dunvegan Real Estate - PALMERSTON      1
Australian Home Partners      1
buymyplace      1
Mercury Real Estate      1
Name: listing_agency, Length: 85, dtype: int64
```

```
In [31]: df["city"].value_counts()
```

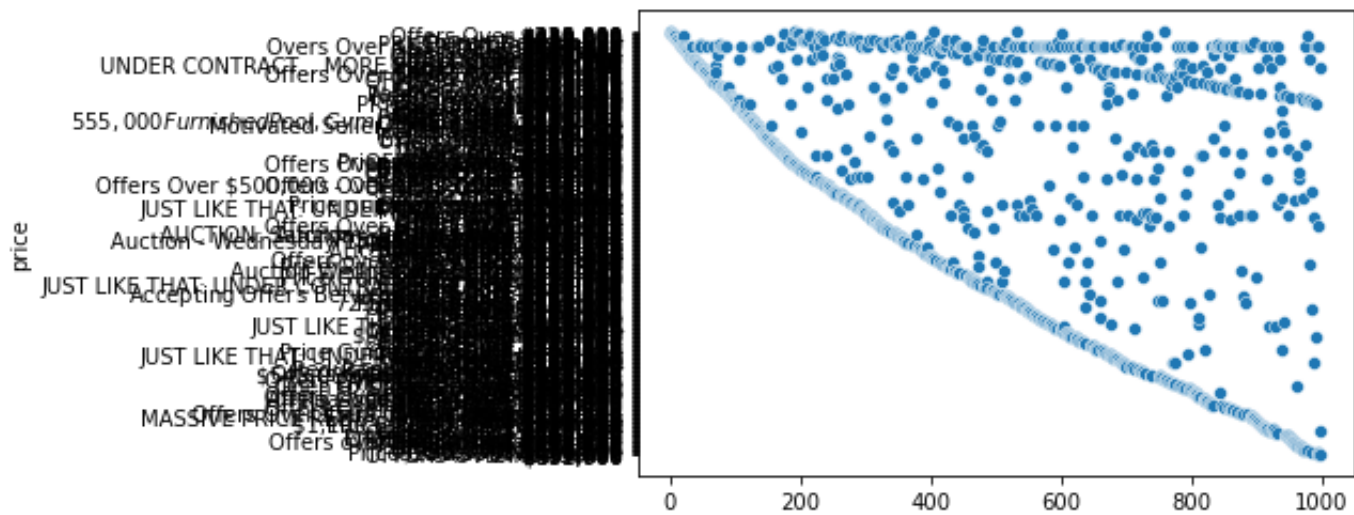
```

Out[31]: Darwin City      285
         Stuart Park     39
         Rosebery       37
         Bakewell       31
         Durack         30
         Zuccoli        29
         Woodroffe      27
         Nightcliff     27
         Driver         26
         Parap          26
         Rapid Creek    25
         Bellamack     23
         Humpty Doo    20
         Johnston      20
         Leanyer       19
         Gunn          19
         Gray          19
         Karama       16
         Moulden      15
         Howard Springs 15
         Berrimah     15
         Bayview      14
         Fannie Bay   14
         Farrar       12
         Coconut Grove 12
         Muirhead     12
         The Gardens  11
         Lyons        10
         Millner      10
         Woolner      9
         Jingili     9
         Herbert      9
         Tiwi         9
         Larrakeyah  9
         Ludmilla    7
         Alawa       7
         Anula       7
         Wagaman     7
         Malak       7
         Wulagi      6
         Virginia    6
         Brinkin     6
         Wanguri     6
         Berry Springs 6
         Moil        5
         Lee Point   4
         Nakara      4
         Marrara     3
         Coolalinga  3
         Girraween   3
         Bees Creek  3
         Cullen Bay  3
         The Narrows 1
         Knuckey Lagoon 1
         Rosebery Heights 1
         Marlow Lagoon 1
         Name: city, dtype: int64

```

```
In [32]: sns.scatterplot(data = df["price"])
```

```
Out[32]: <AxesSubplot:ylabel='price'>
```



In [33]: #As we can See, not every price is a continuous Value, with some prices being more like a categorical variable.
#we will work around that to gather all the numerical prices only from the "price" Column, ignoring every other

```
import re

def extract_price(x):
    if x != "":
        match = re.search(r'\$?\s*(\d+(?:\.\d+)?)[k|m|K|M]\s*', x)

        if match:
            price = match.group(1)
            price = float(price)
            if x[-1].lower() == 'k':
                price *= 1000
            elif x[-1].lower() == 'm':
                price *= 1000000
            return int(price)
        else:
            match = re.sub(r'^\d+', '', x)

            try:
                return int(match)
            except:
                try:
                    return(float(match))
                except:
                    return None

df["NumericalPrice"] = df["price"]

df["NumericalPrice"] = df["NumericalPrice"].apply(lambda x: extract_price(x))
```

In [34]: pd.options.display.max_columns = None
pd.options.display.max_rows = None

df[["price", "NumericalPrice"]]

Out[34]:

	price	NumericalPrice
0	\$435,000	4.350000e+05
1	Offers Over \$320,000	3.200000e+05
2	\$310,000	3.100000e+05
3	\$259,000	2.590000e+05
4	\$439,000	4.390000e+05
5	\$825,000	8.250000e+05
6	\$820,000	8.200000e+05
7	\$369 000	3.690000e+05
8	\$439,000	4.390000e+05
9	\$455,000	4.550000e+05
10	\$280,000	2.800000e+05
11	Openn Negotiation	NaN
12	PRICE GUIDE \$439,000	4.390000e+05
13	\$775,000	7.750000e+05
14	\$625,000	6.250000e+05
15	Overs Over \$599,000 Considered	5.990000e+05
16	\$490,000	4.900000e+05
17	\$337,500	3.375000e+05
18	FASTRAK	NaN
19	\$439,000	4.390000e+05
20	UNDER CONTRACT	NaN
21	Offers Over \$440,000	4.400000e+05
22	\$640,000	6.400000e+05
23	\$500,000	5.000000e+05
24	\$305,000 +	3.050000e+05
25	\$295,000 +	2.950000e+05
26	\$795,000	7.950000e+05

27	Offers Over \$950,000	9.500000e+05
28	Offers Over \$485,000	4.850000e+05
29	\$250,000	2.500000e+05
30	\$549,000	5.490000e+05
31	Offers over \$299,000	2.990000e+05
32	\$395,000	3.950000e+05
33	UNDER CONTRACT	NaN
34	\$475,000	4.750000e+05
35	Contact Agent	NaN
36	OFFERS INVITED	NaN
37	\$465,000	4.650000e+05
38	Current Bid \$600,000	6.000000e+05
39	Offers Over \$980,000	9.800000e+05
40	\$1,050,000	1.050000e+06
41	UNDER CONTRACT... MORE PROPERTIES WANTED	NaN
42	\$450,000	4.500000e+05
43	\$749,000	7.490000e+05
44	UNDER CONTRACT	NaN
45	\$289,000	2.890000e+05
46	\$490,000	4.900000e+05
47	UNDER CONTRACT	NaN
48	Offers over \$565,000	5.650000e+05
49	\$399,000	3.990000e+05
50	Offers over \$469,000	4.690000e+05
51	\$649,000	6.490000e+05
52	Offers Over \$499,000 Considered	4.990000e+05
53	\$400,000	4.000000e+05
54	Offers Over \$800,000	8.000000e+05
55	UNDER CONTRACT	NaN
56	\$299,000	2.990000e+05
57	\$580,000	5.800000e+05
58	Offers Over \$375,000	3.750000e+05
59	\$489,000	4.890000e+05
60	OFFERS OVER \$195,000	1.950000e+05
61	\$505,000	5.050000e+05
62	\$325,000	3.250000e+05
63	\$539,000 negotiable	5.390000e+05
64	\$180,000	1.800000e+05
65	UNDER CONTRACT	NaN
66	\$145,000	1.450000e+05
67	\$215,000	2.150000e+05
68	\$450,000	4.500000e+05
69	\$865,000	8.650000e+05
70	\$400,000	4.000000e+05
71	\$369,000	3.690000e+05
72	\$350,000	3.500000e+05
73	\$549,000	5.490000e+05
74	Offers over \$539,000	5.390000e+05
75	UNDER CONTRACT	NaN
76	\$490,000	4.900000e+05
77	\$209,000 Negoticate	2.090000e+05
78	\$420,000	4.200000e+05

79	UNDER CONTRACT	NaN
80	\$510,000	5.100000e+05
81	UNDER CONTRACT	NaN
82	\$535,000	5.350000e+05
83	\$335,000	3.350000e+05
84	UNDER CONTRACT	NaN
85	Penthouse for \$850,000	8.500000e+05
86	Needs to GO! \$510,000	5.100000e+05
87	\$1,300,000	1.300000e+06
88	Offers Over \$580,000	5.800000e+05
89	\$470,000	4.700000e+05
90	Offers over \$539,000	5.390000e+05
91	\$519,000	5.190000e+05
92	\$219,000	2.190000e+05
93	\$235,000 negotiable	2.350000e+05
94	\$315,000	3.150000e+05
95	Offers over \$450,000	4.500000e+05
96	Negotiable	NaN
97	\$380,000	3.800000e+05
98	\$275,000	2.750000e+05
99	PRICE GUIDE \$1,070,000	1.070000e+06
100	\$270,000	2.700000e+05
101	\$1,100,000	1.100000e+06
102	CONTACT AGENT	NaN
103	Price Guide \$550,000	5.500000e+05
104	Contact Agent	NaN
105	\$380,000	3.800000e+05
106	Offers over \$868,000	8.680000e+05
107	UNDER CONTRACT	NaN
108	\$539,000	5.390000e+05
109	From \$165,000	1.650000e+05
110	Offers Over: \$130,000	1.300000e+05
111	\$589,000	5.890000e+05
112	Offers over \$360,000	3.600000e+05
113	Offers over \$430,000	4.300000e+05
114	Offers over \$839,000	8.390000e+05
115	\$147 000	1.470000e+05
116	\$270,000	2.700000e+05
117	PRICE GUIDE \$795,000	7.950000e+05
118	Offers Over \$430,000	4.300000e+05
119	Open to offers!	NaN
120	555,000FurnishedPool,GymLEASED :640 per ...	5.550006e+08
121	CONTACT AGENT	NaN
122	Offers over \$529,000	5.290000e+05
123	\$460,000	4.600000e+05
124	\$195,000	1.950000e+05
125	Offers above \$479,000	4.790000e+05
126	\$295,000	2.950000e+05
127	\$370,000 ono	3.700000e+05
128	Motivated Seller- Offers over \$475,000	4.750000e+05
129	Offers over \$520,000	5.200000e+05
130	\$449,000	4.490000e+05

131	\$525,000	5.250000e+05
132	UNDER CONTRACT	NaN
133	Offers over \$500,000	5.000000e+05
134	UNDER CONTRACT	NaN
135	New Price \$595,000	5.950000e+05
136	Offers Over \$190,000	1.900000e+05
137	Under iContract	NaN
138	Negotiable Above 1.5M	1.500000e+06
139	\$235,000+	2.350000e+05
140	\$389,000.00	3.890000e+07
141	\$370,000	3.700000e+05
142	\$1,950,000	1.950000e+06
143	\$175,000	1.750000e+05
144	\$520,000 O.N.O	5.200000e+05
145	\$329,000	3.290000e+05
146	Offers above \$559,000	5.590000e+05
147	Expressions of Interest	NaN
148	\$279,000	2.790000e+05
149	From \$500,000	5.000000e+05
150	\$280,000	2.800000e+05
151	\$1,250,000	1.250000e+06
152	\$800,000	8.000000e+05
153	280,000to300,000	2.800003e+11
154	\$449,000	4.490000e+05
155	Invest Now \$455,000	4.550000e+05
156	\$450,000 ONO	4.500000e+05
157	\$685,000	6.850000e+05
158	\$289,000	2.890000e+05
159	\$429,000	4.290000e+05
160	\$559,000	5.590000e+05
161	\$210,000	2.100000e+05
162	200,000–250,000	2.000002e+11
163	Offers over \$300,000	3.000000e+05
164	\$450,000	4.500000e+05
165	Offers over \$300,000	3.000000e+05
166	\$499,000	4.990000e+05
167	P.O.A.	NaN
168	\$480,000	4.800000e+05
169	\$325,000	3.250000e+05
170	Awaiting Price Guide	NaN
171	\$440,000	4.400000e+05
172	FASTRAK	NaN
173	\$310,000	3.100000e+05
174	200,000–220,000	2.000002e+11
175	offers over \$399,000	3.990000e+05
176	\$430,000	4.300000e+05
177	\$99,950	9.995000e+04
178	\$900,000 negotiable	9.000000e+05
179	Price reduction! \$895,000!	8.950000e+05
180	\$990,000	9.900000e+05
181	OFFERS OVER \$610,000	6.100000e+05
182	\$1,199,000	1.199000e+06

183		\$1,100,000	1.100000e+06
184	Offers Over \$665,000 Considered		6.650000e+05
185		\$490,000	4.900000e+05
186	Openn Negotiation		NaN
187	PRICE GUIDE \$575,000		5.750000e+05
188	Bidding from 700k		7.000000e+05
189		\$435,000	4.350000e+05
190	Bidding from \$550,000		5.500000e+05
191	AUCTION		NaN
192	Offers over \$1,200,000		1.200000e+06
193	FOR SALE		NaN
194		\$475,000	4.750000e+05
195	Offers Over \$320,000		3.200000e+05
196	Offers over \$365,000		3.650000e+05
197		\$310,000	3.100000e+05
198	OFFERS OVER \$700,000		7.000000e+05
199	Offers Over: 565000		5.650000e+05
200		\$419,000	4.190000e+05
201		\$370,000	3.700000e+05
202	Openn Negotiation		NaN
203	Openn Negotiation		NaN
204	OFFERS OVER \$330,000		3.300000e+05
205		\$560,000	5.600000e+05
206	Openn Negotiation		NaN
207		\$460,000 +	4.600000e+05
208	PRICE GUIDE \$290,000		2.900000e+05
209		\$420,000	4.200000e+05
210	Openn Negotiation		NaN
211	PRICE GUIDE \$570,000		5.700000e+05
212		\$259,000	2.590000e+05
213		\$569,000	5.690000e+05
214		\$439,000	4.390000e+05
215	Contact Agent		NaN
216		\$739,000	7.390000e+05
217	Offers Over \$399,000		3.990000e+05
218	Auction		NaN
219		\$599,000	5.990000e+05
220	FASTRAK		NaN
221		\$660,000	6.600000e+05
222		\$430,000	4.300000e+05
223	Auction		NaN
224	Auction		NaN
225		\$250,000	2.500000e+05
226	Openn Negotiation		NaN
227	Offers over \$800,000		8.000000e+05
228		\$880,000	8.800000e+05
229	FASTRAK		NaN
230	PRICE GUIDE \$540,000		5.400000e+05
231		\$825,000	8.250000e+05
232	Offers Over \$399,000 Considered		3.990000e+05
233		\$820,000	8.200000e+05
234		\$549,000	5.490000e+05

235	Openn Negotiation	NaN
236	OFFERS OVER \$370,000	3.700000e+05
237	Offers Over \$500,000 - Offers by 6.30pm 22/6/22	5.000006e+13
238	\$325,000	3.250000e+05
239	OVER \$450,000	4.500000e+05
240	\$430,000	4.300000e+05
241	Offers over \$450,000	4.500000e+05
242	Offers Over \$470,000	4.700000e+05
243	\$612,300	6.123000e+05
244	\$592,000	5.920000e+05
245	\$614,000	6.140000e+05
246	\$218,000	2.180000e+05
247	\$255,000	2.550000e+05
248	\$425,000	4.250000e+05
249	\$325,000	3.250000e+05
250	\$779,000	7.790000e+05
251	\$450,000	4.500000e+05
252	\$425,000	4.250000e+05
253	\$369 000	3.690000e+05
254	\$850,000	8.500000e+05
255	\$539,000	5.390000e+05
256	\$395,000	3.950000e+05
257	Offers under \$340,000	3.400000e+05
258	Openn Negotiation	NaN
259	\$475,000	4.750000e+05
260	\$1,050,000	1.050000e+06
261	\$570,000	5.700000e+05
262	\$419,000	4.190000e+05
263	Offers Over \$285,000	2.850000e+05
264	\$439,000	4.390000e+05
265	\$470,000 Negotiable	4.700000e+05
266	Under Offer	NaN
267	\$365,000	3.650000e+05
268	\$299,000	2.990000e+05
269	\$499,000	4.990000e+05
270	\$420,000 +	4.200000e+05
271	\$270,000	2.700000e+05
272	\$280,000	2.800000e+05
273	Price guide-275, 000–325,000	2.750003e+11
274	\$269,000	2.690000e+05
275	\$750,000	7.500000e+05
276	Offers above \$285,000	2.850000e+05
277	\$599,000	5.990000e+05
278	\$455,000	4.550000e+05
279	Openn Negotiation	NaN
280	Expression of Interest	NaN
281	PRICE GUIDE \$575,000	5.750000e+05
282	UNDER OFFER	NaN
283	\$280,000	2.800000e+05
284	Auction	NaN
285	\$579,000	5.790000e+05
286	Expressions Of Interest	NaN

287	PRICE GUIDE \$530,000	5.300000e+05
288	UNDER OFFER	NaN
289	Openn Negotiation	NaN
290	JUST LIKE THAT: UNDER CONTRACT IN 5 DAYS	5.000000e+00
291	\$739,000	7.390000e+05
292	PRICE GUIDE \$750,000	7.500000e+05
293	UNDER CONTRACT	NaN
294	\$535,000 +	5.350000e+05
295	\$629,000	6.290000e+05
296	\$275,000 +	2.750000e+05
297	PROPERTY PREVIEW	NaN
298	Offers Over \$550,000	5.500000e+05
299	\$639,000	6.390000e+05
300	FASTRAK	NaN
301	Offers over \$650,000	6.500000e+05
302	Auction	NaN
303	UNDER CONTRACT	NaN
304	Under Contract	NaN
305	\$329,000	3.290000e+05
306	Openn Negotiation	NaN
307	\$385,000	3.850000e+05
308	\$550,000	5.500000e+05
309	Offers over \$549,000	5.490000e+05
310	Offer Over \$300,000	3.000000e+05
311	\$387,000	3.870000e+05
312	\$420,000	4.200000e+05
313	Openn Negotiation	NaN
314	\$590,000	5.900000e+05
315	Offers over \$489,000	4.890000e+05
316	Offers over \$569,000	5.690000e+05
317	Offers Over \$435,000 Considered	4.350000e+05
318	\$1,650,000	1.650000e+06
319	\$293,000	2.930000e+05
320	\$293,000	2.930000e+05
321	\$293,000	2.930000e+05
322	\$495,000	4.950000e+05
323	PRICE GUIDE \$439,000	4.390000e+05
324	\$875,000 negotiable	8.750000e+05
325	Auction Action	NaN
326	UNDER CONTRACT	NaN
327	\$380,000	3.800000e+05
328	\$240,000	2.400000e+05
329	\$315,000	3.150000e+05
330	Price Guide \$570,000	5.700000e+05
331	\$460,000	4.600000e+05
332	Offers over \$685,000	6.850000e+05
333	\$775,000	7.750000e+05
334	\$429,000	4.290000e+05
335	Offers over \$635,000	6.350000e+05
336	\$625,000	6.250000e+05
337	\$580,000	5.800000e+05
338	Auction - Bidding from \$700,000	7.000000e+05

339	AUCTION: Saturday 4th Jun @11am On-Site	4.110000e+02
340	\$399,000	3.990000e+05
341	\$750,000	7.500000e+05
342	\$480,000	4.800000e+05
343	Openn Negotiation	NaN
344	UNDER CONTRACT	NaN
345	\$529,000	5.290000e+05
346	Under Contract	NaN
347	Current Bid \$650,000	6.500000e+05
348	Overs Over \$599,000 Considered	5.990000e+05
349	\$659,000	6.590000e+05
350	PROPERTY PREVIEW	NaN
351	\$490,000	4.900000e+05
352	Price Guide High \$500,000	5.000000e+05
353	Offers over \$405,000	4.050000e+05
354	PRICE GUIDE \$545,000	5.450000e+05
355	\$420,000	4.200000e+05
356	Auction - Wednesday 15th June 2022 at 5.30pm	1.520225e+08
357	OFFERS OVER \$690,000	6.900000e+05
358	New to Market	NaN
359	PRICE GUIDE \$1,200,000	1.200000e+06
360	Openn Negotiation	NaN
361	Auction	NaN
362	PRICE GUIDE \$510,000	5.100000e+05
363	UNDER CONTRACT	NaN
364	Offers Over \$750,000	7.500000e+05
365	UNDER OFFER	NaN
366	\$337,500	3.375000e+05
367	FASTRAK	NaN
368	\$439,000	4.390000e+05
369	UNDER CONTRACT	NaN
370	Offers over \$299,000	2.990000e+05
371	PRICE GUIDE \$490,000	4.900000e+05
372	\$649,000	6.490000e+05
373	Auction on site	NaN
374	Auction 8th June on site	8.000000e+00
375	UNDER CONTRACT	NaN
376	Under Contract	NaN
377	Offers Over \$440,000	4.400000e+05
378	Expressions of Interest	NaN
379	\$320,000	3.200000e+05
380	Current Bid \$490,000	4.900000e+05
381	UNDER CONTRACT	NaN
382	\$489,000	4.890000e+05
383	\$665,000	6.650000e+05
384	AUCTION - Bids from \$630K	6.300000e+05
385	\$290,000	2.900000e+05
386	PRICE GUIDE \$298,000	2.980000e+05
387	FASTRAK	NaN
388	\$660,000	6.600000e+05
389	PRICE GUIDE \$690,000	6.900000e+05
390	PRICE GUIDE \$590,000	5.900000e+05

391	Current Bid - \$510,000	5.100000e+05
392	\$400,000	4.000000e+05
393	Offers above \$420,000	4.200000e+05
394	\$640,000	6.400000e+05
395	\$320,000	3.200000e+05
396	\$695,000	6.950000e+05
397	Openn Negotiation	NaN
398	UNDER CONTRACT	NaN
399	\$275,000	2.750000e+05
400	Offers over \$285,000	2.850000e+05
401	Offers over \$660,000 considered	6.600000e+05
402	\$435,000	4.350000e+05
403	\$685,000 ONO	6.850000e+05
404	\$950,000	9.500000e+05
405	\$500,000	5.000000e+05
406	\$498,000	4.980000e+05
407	Current Bid \$740,000	7.400000e+05
408	\$450,000	4.500000e+05
409	OFFERS OVER \$700,000	7.000000e+05
410	\$305,000 +	3.050000e+05
411	\$295,000 +	2.950000e+05
412	\$795,000	7.950000e+05
413	\$425,000	4.250000e+05
414	Price Guide: 700, 000–720,000	7.000007e+11
415	\$485,000	4.850000e+05
416	UNDER CONTRACT	NaN
417	\$649,000	6.490000e+05
418	\$665,000 ONO	6.650000e+05
419	Auction ON SITE	NaN
420	\$215,000	2.150000e+05
421	UNDER CONTRACT	NaN
422	UNDER CONTRACT	NaN
423	Openn Negotiation	NaN
424	\$339,000	3.390000e+05
425	Offers above \$399,000	3.990000e+05
426	\$735,000	7.350000e+05
427	\$975,000	9.750000e+05
428	\$295,000	2.950000e+05
429	Under Contract	NaN
430	Auction Wednesday 1st of June 2022	1.202200e+04
431	Offers over \$725,000	7.250000e+05
432	\$485,000	4.850000e+05
433	\$485,000	4.850000e+05
434	Offers Over \$950,000	9.500000e+05
435	UNDER CONTRACT	NaN
436	\$610,000	6.100000e+05
437	Openn Negotiation	NaN
438	Current Bid \$500,000	5.000000e+05
439	PRICE GUIDE \$480,000	4.800000e+05
440	\$449,000	4.490000e+05
441	\$795,000	7.950000e+05
442	Price Guide: 520, 000–550,000	5.200006e+11

443	Offers Over \$620,000	6.200000e+05
444	UNDER OFFER	NaN
445	UNDER CONTRACT	NaN
446	UNDER CONTRACT	NaN
447	UNDER CONTRACT	NaN
448	PROPERTY PREVIEW	NaN
449	UNDER CONTRACT	NaN
450	Expressions of Interest	NaN
451	\$550,000	5.500000e+05
452	\$1,490,000	1.490000e+06
453	UNDER CONTRACT	NaN
454	\$292,000	2.920000e+05
455	Auction Action	NaN
456	\$475,000	4.750000e+05
457	Offers Over \$399,000	3.990000e+05
458	\$520,000	5.200000e+05
459	Offers over 295,000	2.950000e+05
460	Offers over \$820,000	8.200000e+05
461	Offers over \$460,000	4.600000e+05
462	\$449,000	4.490000e+05
463	\$220,000	2.200000e+05
464	\$575,000	5.750000e+05
465	\$329,000	3.290000e+05
466	\$529,000	5.290000e+05
467	\$349,000	3.490000e+05
468	Offers Over \$485,000	4.850000e+05
469	\$389000	3.890000e+05
470	JUST LIKE THAT: UNDER CONTRACT PRIOR TO AUCTION	NaN
471	\$250,000	2.500000e+05
472	\$695,000	6.950000e+05
473	\$735,000	7.350000e+05
474	OFFERS OVER \$760,000	7.600000e+05
475	\$535,000	5.350000e+05
476	\$559,000	5.590000e+05
477	\$630,000	6.300000e+05
478	UNDER CONTRACT	NaN
479	\$429,000	4.290000e+05
480	Openn Negotiation	NaN
481	\$300,000	3.000000e+05
482	Offers Over \$300,000	3.000000e+05
483	Offers over \$220,000	2.200000e+05
484	PROPERTY PREVIEW	NaN
485	\$575,000	5.750000e+05
486	Offers over \$799,000	7.990000e+05
487	\$480,000	4.800000e+05
488	\$549,000	5.490000e+05
489	Offers over \$299,000	2.990000e+05
490	\$649,000	6.490000e+05
491	PRICE GUIDE \$525,000	5.250000e+05
492	\$380,000	3.800000e+05
493	\$395,000	3.950000e+05
494	Auction Action	NaN

495		\$860,000	8.600000e+05
496	Accepting Offers Between 275,000–295,000		2.750003e+11
497	UNDER CONTRACT		NaN
498		\$475,000	4.750000e+05
499		\$485,000	4.850000e+05
500	Offers over \$675,000		6.750000e+05
501		\$449,000	4.490000e+05
502	offers over \$1,250,000		1.250000e+06
503		\$1,200,000	1.200000e+06
504	Offers over \$850,000		8.500000e+05
505	Contact Agent		NaN
506		\$295,000	2.950000e+05
507		\$349,000	3.490000e+05
508	UNDER OFFER		NaN
509	FASTRAK		NaN
510	FASTRAK		NaN
511	UNDER CONTRACT		NaN
512	PRICE GUIDE \$735,000		7.350000e+05
513		\$610,000	6.100000e+05
514		\$625,000	6.250000e+05
515		\$355,700	3.557000e+05
516		\$355,700	3.557000e+05
517		\$359,000	3.590000e+05
518		\$370,990	3.709900e+05
519		\$465,000	4.650000e+05
520		\$325,000	3.250000e+05
521	Offers over \$700,000		7.000000e+05
522	OFFERS INVITED		NaN
523	729,000DH Alease934 pwk		7.290009e+08
524	UNDER CONTRACT		NaN
525		\$620,000	6.200000e+05
526	PRICE GUIDE \$1,100,000		1.100000e+06
527	UNDER CONTRACT		NaN
528		\$595,000	5.950000e+05
529		\$380,000	3.800000e+05
530		\$435,000	4.350000e+05
531		\$465,000	4.650000e+05
532	UNDER OFFER		NaN
533	Offers Over \$859,000		8.590000e+05
534	Under Contract		NaN
535	OFFERS OVER \$800,000		8.000000e+05
536	UNDER CONTRACT		NaN
537		\$450 000	4.500000e+05
538	Offers from mid \$800's		8.000000e+02
539	Mid \$500,000 ono		5.000000e+05
540	Offers Over \$600,000		6.000000e+05
541	UNDER CONTRACT		NaN
542	UNDER CONTRACT		NaN
543		\$325,000	3.250000e+05
544	Under Contract		NaN
545	Offers over \$550,000		5.500000e+05
546		\$489,000	4.890000e+05

547	PRICE GUIDE \$209,000	2.090000e+05
548	Offers over \$370,000	3.700000e+05
549	Offers Over \$290,000	2.900000e+05
550	Offers over \$630,000	6.300000e+05
551	\$269,000	2.690000e+05
552	\$316,000	3.160000e+05
553	\$115,000	1.150000e+05
554	\$535,000 +	5.350000e+05
555	UNDER CONTRACT	NaN
556	\$1,400,000	1.400000e+06
557	UNDER CONTRACT	NaN
558	UNDER CONTRACT	NaN
559	\$418,000	4.180000e+05
560	\$385,000	3.850000e+05
561	OFFERS OVER \$780,000	7.800000e+05
562	\$460,000 ONO	4.600000e+05
563	\$410,000	4.100000e+05
564	\$819,000	8.190000e+05
565	\$449,000	4.490000e+05
566	UNDER CONTRACT	NaN
567	UNDER CONTRACT	NaN
568	Current Bid \$600,000	6.000000e+05
569	REDUCED to SELL!!!	NaN
570	OFFERS OVER \$695k	6.950000e+05
571	\$339,000 +	3.390000e+05
572	UNDER CONTRACT	NaN
573	UNDER CONTRACT	NaN
574	NEW PRICE \$430,000	4.300000e+05
575	Offers Over \$980,000	9.800000e+05
576	\$1,050,000	1.050000e+06
577	UNDER CONTRACT	NaN
578	FASTRAK	NaN
579	\$540,000	5.400000e+05
580	OVER \$450,000	4.500000e+05
581	UNDER CONTRACT	NaN
582	PRICE GUIDE \$830,000	8.300000e+05
583	JUST LIKE THAT: UNDER CONTRACT	NaN
584	\$375,000	3.750000e+05
585	UNDER CONTRACT	NaN
586	\$515,000	5.150000e+05
587	UNDER CONTRACT... MORE PROPERTIES WANTED	NaN
588	\$665,000	6.650000e+05
589	Offers over \$345,000	3.450000e+05
590	OFFERS OVER \$505,000	5.050000e+05
591	\$525,000	5.250000e+05
592	UNDER CONTRACT	NaN
593	\$670,000 Negotiable	6.700000e+05
594	\$625,000	6.250000e+05
595	\$450,000	4.500000e+05
596	\$590,000	5.900000e+05
597	\$749,000	7.490000e+05
598	UNDER CONTRACT	NaN

599		\$259,000	2.590000e+05
600		\$225,000	2.250000e+05
601		\$548,000	5.480000e+05
602		OFFERS OVER 399,000	3.990000e+05
603		PRICE GUIDE \$445,000	4.450000e+05
604		\$515,000	5.150000e+05
605		\$349,000	3.490000e+05
606		\$420,000	4.200000e+05
607		\$950000 or nearest Offer	9.500000e+05
608		UNDER CONTRACT	NaN
609		PRICE GUIDE \$646,000	6.460000e+05
610		\$485,000	4.850000e+05
611		\$510,000 each unit	5.100000e+05
612		From \$220,000	2.200000e+05
613		\$390,000	3.900000e+05
614		UNDER CONTRACT	NaN
615		Under Offer	NaN
616		\$559,000	5.590000e+05
617		PRICE GUIDE \$495,000	4.950000e+05
618		\$525,000	5.250000e+05
619		\$320,000	3.200000e+05
620		\$475,000	4.750000e+05
621		UNDER CONTRACT	NaN
622		\$555,000	5.550000e+05
623		\$459,000	4.590000e+05
624		UNDER OFFER	NaN
625		NEW PRICE \$279,000	2.790000e+05
626		UNDER CONTRACT	NaN
627		OFFERS OVER \$530,000	5.300000e+05
628		\$289,000	2.890000e+05
629		Offers Over \$530,000	5.300000e+05
630		\$490,000	4.900000e+05
631		UNDER CONTRACT	NaN
632		\$449,000	4.490000e+05
633		\$429000	4.290000e+05
634		Offers Over \$399,000	3.990000e+05
635		\$389,000	3.890000e+05
636		\$575,000	5.750000e+05
637		\$589,500	5.895000e+05
638		Offers Over \$600,000	6.000000e+05
639		\$485,000	4.850000e+05
640		UNDER CONTRACT	NaN
641		UNDER CONTRACT	NaN
642		Contact Agent	NaN
643		UNDER CONTRACT	NaN
644		Offers over \$850,000	8.500000e+05
645		Under Contract	NaN
646		UNDER CONTRACT	NaN
647		\$165,000	1.650000e+05
648		\$355,000	3.550000e+05
649		Offers over \$399,000	3.990000e+05
650		Offers over \$565,000	5.650000e+05

651	UNDER CONTRACT	NaN
652	PRICE GUIDE \$330,000	3.300000e+05
653	Offers invited \$440,000	4.400000e+05
654	Price Guide: 650, 000–700,000	6.500007e+11
655	\$399,000	3.990000e+05
656	\$479,000	4.790000e+05
657	Offers over \$469,000	4.690000e+05
658	\$410,000	4.100000e+05
659	UNDER CONTRACT	NaN
660	\$620,000	6.200000e+05
661	PRICE GUIDE \$1,200,000	1.200000e+06
662	Offers Over \$775,000	7.750000e+05
663	UNDER CONTRACT	NaN
664	\$580,000	5.800000e+05
665	PRICE GUIDE \$329,000	3.290000e+05
666	UNDER CONTRACT	NaN
667	Offers over \$1.2m	1.200000e+06
668	\$660,000	6.600000e+05
669	\$649,000	6.490000e+05
670	\$899,000	8.990000e+05
671	\$1,100,000	1.100000e+06
672	\$420,000	4.200000e+05
673	\$335,000	3.350000e+05
674	Offers above \$799,000	7.990000e+05
675	JUST LIKE THAT: UNDER CONTRACT IN 7 DAYS	7.000000e+00
676	JUST LIKE THAT: UNDER CONTRACT	NaN
677	NEW PRICE \$639,000	6.390000e+05
678	\$499,000 O.N.O	4.990000e+05
679	\$1,800,000	1.800000e+06
680	Offers Over \$499,000 Considered	4.990000e+05
681	UNDER CONTRACT	NaN
682	\$400,000	4.000000e+05
683	\$279,000	2.790000e+05
684	Offers welcome \$695K	6.950000e+05
685	OVER \$900,000	9.000000e+05
686	\$575,000	5.750000e+05
687	\$380,000	3.800000e+05
688	\$345,000 ONO	3.450000e+05
689	Under Contract	NaN
690	Offers above \$859,000	8.590000e+05
691	Offers over \$740,000	7.400000e+05
692	\$569,000	5.690000e+05
693	\$490,000	4.900000e+05
694	\$600,000	6.000000e+05
695	Offers Over \$700,000	7.000000e+05
696	\$290,000	2.900000e+05
697	Offers Over \$599,000	5.990000e+05
698	Offers Over \$800,000	8.000000e+05
699	\$720,000	7.200000e+05
700	Range 600, 000–650,000	6.000006e+11
701	\$430,000	4.300000e+05
702	Under Contract	NaN

703	UNDER CONTRACT	NaN
704	UNDER CONTRACT	NaN
705	UNDER CONTRACT	NaN
706	FASTRAK	NaN
707	Reduced Offers Over \$330,000	3.300000e+05
708	UNDER CONTRACT	NaN
709	Offers Over \$580,000	5.800000e+05
710	Offers over \$400,000	4.000000e+05
711	Offers Over \$849,000	8.490000e+05
712	\$225,000	2.250000e+05
713	\$250,000	2.500000e+05
714	\$387,000	3.870000e+05
715	\$210,000	2.100000e+05
716	\$599,000	5.990000e+05
717	\$299,000	2.990000e+05
718	UNDER CONTRACT	NaN
719	\$475,000	4.750000e+05
720	Offers over \$679,000 considered	6.790000e+05
721	\$560,000 +	5.600000e+05
722	\$475,000	4.750000e+05
723	\$319,000	3.190000e+05
724	\$520,000	5.200000e+05
725	\$639,000	6.390000e+05
726	OFFERS OVER \$750,000	7.500000e+05
727	\$334,000	3.340000e+05
728	Awaiting Price Guide	NaN
729	UNDER CONTRACT	NaN
730	\$460k NEGOTIABLE	4.600000e+02
731	\$439,000	4.390000e+05
732	Offers Over \$550,000	5.500000e+05
733	\$580,000	5.800000e+05
734	\$580,000	5.800000e+05
735	Offers Over \$375,000	3.750000e+05
736	\$495,000	4.950000e+05
737	\$545,000 (over 1000sqm of land)	5.450001e+09
738	\$429,000	4.290000e+05
739	PRICE GUIDE \$1,090,000	1.090000e+06
740	\$550,000	5.500000e+05
741	\$480,000	4.800000e+05
742	\$489,000	4.890000e+05
743	\$599,000	5.990000e+05
744	\$489,000	4.890000e+05
745	\$550,000	5.500000e+05
746	UNDER CONTRACT	NaN
747	OFFERS OVER \$700,000	7.000000e+05
748	\$620,000	6.200000e+05
749	\$399,000	3.990000e+05
750	\$485,000	4.850000e+05
751	Under Offer	NaN
752	Offers Over \$620,000 Considered	6.200000e+05
753	PRICE GUIDE \$390,000	3.900000e+05
754	\$620,000	6.200000e+05

755	Overs over \$320,000	3.200000e+05
756	OFFERS OVER \$195,000	1.950000e+05
757	\$435,000	4.350000e+05
758	\$895,000	8.950000e+05
759	\$505,000	5.050000e+05
760	PRICED TO SELL \$719,000!	7.190000e+05
761	\$470,000	4.700000e+05
762	\$149,000	1.490000e+05
763	\$480,000	4.800000e+05
764	\$789,000	7.890000e+05
765	\$325,000	3.250000e+05
766	\$495,000	4.950000e+05
767	\$539,000 negotiable	5.390000e+05
768	\$457,000	4.570000e+05
769	\$350,000	3.500000e+05
770	\$600,000	6.000000e+05
771	offers above \$510,000	5.100000e+05
772	\$180,000	1.800000e+05
773	\$600,000	6.000000e+05
774	\$489,000	4.890000e+05
775	Open to Offers around \$499,000	4.990000e+05
776	\$650,000 +	6.500000e+05
777	FASTRAK	NaN
778	\$420,000	4.200000e+05
779	UNDER CONTRACT	NaN
780	\$830 000	8.300000e+05
781	\$400,000	4.000000e+05
782	UNDER CONTRACT... MORE PROPERTIES WANTED	NaN
783	\$450,000	4.500000e+05
784	UNDER CONTRACT	NaN
785	Offers over \$380,000	3.800000e+05
786	\$299,000	2.990000e+05
787	\$635,000 +	6.350000e+05
788	\$1,050,000	1.050000e+06
789	Under Contract	NaN
790	Offers Over \$199,000	1.990000e+05
791	\$570,000	5.700000e+05
792	UNDER CONTRACT	NaN
793	\$899,000	8.990000e+05
794	\$419,000	4.190000e+05
795	\$145,000	1.450000e+05
796	UNDER CONTRACT	NaN
797	\$289,000 obo	2.890000e+05
798	\$499,000 +	4.990000e+05
799	\$595,000	5.950000e+05
800	Offers Over: \$499,000	4.990000e+05
801	\$399,000	3.990000e+05
802	UNDER CONTRACT	NaN
803	\$215,000	2.150000e+05
804	Offers over \$480,000	4.800000e+05
805	Offers Over \$339,000 Considered	3.390000e+05
806	Offers Over \$340,000	3.400000e+05

807	OFFERS OVER \$490,000	4.900000e+05
808	Offers Over \$500,000 Considered	5.000000e+05
809	\$375,000	3.750000e+05
810	\$462,500	4.625000e+05
811	All Reasonable Offers Considered	NaN
812	\$410,000	4.100000e+05
813	OFFERS OVER \$550,000	5.500000e+05
814	\$430,000	4.300000e+05
815	\$320,000	3.200000e+05
816	\$450,000	4.500000e+05
817	\$430,000	4.300000e+05
818	\$865,000	8.650000e+05
819	\$740,000	7.400000e+05
820	PRICE GUIDE \$895,000	8.950000e+05
821	Offers Over \$255,000	2.550000e+05
822	Offers Over \$775,000	7.750000e+05
823	\$400,000	4.000000e+05
824	High \$400,000s	4.000000e+05
825	Offers Over \$449,000	4.490000e+05
826	\$780,000	7.800000e+05
827	\$1,200,000	1.200000e+06
828	\$369,000	3.690000e+05
829	UNDER CONTRACT	NaN
830	\$260,000	2.600000e+05
831	525,000–535,000	5.250005e+11
832	Offers Over \$765,000 Considered	7.650000e+05
833	Expressions of Interest	NaN
834	\$350,000	3.500000e+05
835	\$549,000	5.490000e+05
836	UNDER CONTRACT	NaN
837	Offers over \$539,000	5.390000e+05
838	UNDER CONTRACT	NaN
839	UNDER CONTRACT	NaN
840	UNDER OFFER	NaN
841	\$490,000	4.900000e+05
842	FASTRAK	NaN
843	\$550,000	5.500000e+05
844	Offers over \$480,000	4.800000e+05
845	\$289,000	2.890000e+05
846	UNDER CONTRACT	NaN
847	\$209,000 Negotiate	2.090000e+05
848	\$849,000	8.490000e+05
849	\$770,000	7.700000e+05
850	\$525,000	5.250000e+05
851	Awaiting Price Guide	NaN
852	\$420,000	4.200000e+05
853	UNDER CONTRACT	NaN
854	\$510,000	5.100000e+05
855	UNDER CONTRACT	NaN
856	\$570,000	5.700000e+05
857	\$549,000	5.490000e+05
858	Offers over \$730,000	7.300000e+05

859	\$590,000	5.900000e+05
860	UNDER CONTRACT	NaN
861	Offers Over \$575,000	5.750000e+05
862	Offers Over \$350,000	3.500000e+05
863	Offers Over \$500,000 will be considered	5.000000e+05
864	\$535,000	5.350000e+05
865	\$325,000	3.250000e+05
866	UNDER CONTRACT	NaN
867	\$335,000	3.350000e+05
868	UNDER CONTRACT	NaN
869	Offers Over \$780,000 Invited	7.800000e+05
870	Penthouse for \$850,000	8.500000e+05
871	O/O \$750,000	7.500000e+05
872	Needs to GO! \$510,000	5.100000e+05
873	\$560,000	5.600000e+05
874	Under Contract	NaN
875	\$440,000	4.400000e+05
876	Offers Over \$295,000	2.950000e+05
877	\$610,000	6.100000e+05
878	From \$370,000	3.700000e+05
879	\$359,000	3.590000e+05
880	FASTRAK	NaN
881	UNDER CONTRACT	NaN
882	UNDER CONTRACT	NaN
883	UNDER CONTRACT	NaN
884	\$595,000	5.950000e+05
885	UNDER CONTRACT	NaN
886	\$1,300,000	1.300000e+06
887	MASSIVE PRICE REDUCTION!! NOW \$277,500	2.775000e+05
888	UNDER CONTRACT	NaN
889	Under Contract	NaN
890	UNDER CONTRACT	NaN
891	Under contract	NaN
892	\$650,000	6.500000e+05
893	Low - Mid \$200,000	2.000000e+05
894	\$385,000	3.850000e+05
895	Offers Over \$500,000	5.000000e+05
896	\$570000 neg	5.700000e+05
897	\$625,000	6.250000e+05
898	\$520,000	5.200000e+05
899	High \$500,000 ono	5.000000e+05
900	\$345,000 Negotiable	3.450000e+05
901	PRICE REDUCED - \$475,000	4.750000e+05
902	\$360,000	3.600000e+05
903	\$399,000	3.990000e+05
904	\$1,100,000 Duplex Investment	1.100000e+06
905	Offers Over \$580,000	5.800000e+05
906	\$409,000	4.090000e+05
907	\$470,000 ONO	4.700000e+05
908	\$283,000	2.830000e+05
909	UNDER CONTRACT	NaN
910	Offers Over \$699,000	6.990000e+05

911	UNDER CONTRACT	NaN
912	\$390,000+	3.900000e+05
913	\$615,000	6.150000e+05
914	\$645,000	6.450000e+05
915	\$599,000	5.990000e+05
916	Contact Agent	NaN
917	\$615,000	6.150000e+05
918	\$370,000	3.700000e+05
919	\$515,000	5.150000e+05
920	\$675,000	6.750000e+05
921	\$289,000	2.890000e+05
922	\$480,000	4.800000e+05
923	OFFERS OVER \$500,000	5.000000e+05
924	FASTRAK	NaN
925	Offers Over \$299,000	2.990000e+05
926	\$615,000	6.150000e+05
927	UNDER CONTRACT	NaN
928	PRICE GUIDE \$260,000	2.600000e+05
929	\$675,000	6.750000e+05
930	\$515,000	5.150000e+05
931	UNDER CONTRACT	NaN
932	\$545,000	5.450000e+05
933	UNDER OFFER	NaN
934	\$470,000	4.700000e+05
935	Offers over \$539,000	5.390000e+05
936	\$475,000	4.750000e+05
937	Under Offer	NaN
938	Offers over \$360,000	3.600000e+05
939	\$449,000	4.490000e+05
940	\$479,000	4.790000e+05
941	\$370,000	3.700000e+05
942	\$519,000	5.190000e+05
943	\$540,000	5.400000e+05
944	\$219,000	2.190000e+05
945	Offers over \$385,000	3.850000e+05
946	Price Guide Low \$700,000	7.000000e+05
947	\$499,000	4.990000e+05
948	OFFERS OVER \$1,200,000	1.200000e+06
949	Under Contract	NaN
950	Offers invited \$539,000	5.390000e+05
951	Offers over \$600,000 Considered	6.000000e+05
952	\$235,000 negotiable	2.350000e+05
953	Offers Over \$499,000	4.990000e+05
954	\$1.15m	1.150000e+06
955	\$699,000	6.990000e+05
956	PRICE GUIDE \$395,000	3.950000e+05
957	PRICE DROP \$645k	6.450000e+05
958	\$269,000	2.690000e+05
959	\$3,990,000	3.990000e+06
960	Offers over \$419,000	4.190000e+05
961	Offers over \$380,000	3.800000e+05
962	\$430,000	4.300000e+05

963	\$244,000	2.440000e+05
964	\$599,000	5.990000e+05
965	Offers Over \$480,000	4.800000e+05
966	\$560,000	5.600000e+05
967	\$315,000	3.150000e+05
968	585,000 & 595,000	5.850006e+11
969	\$1,550,000	1.550000e+06
970	Offers over \$450,000	4.500000e+05
971	Under Offer	NaN
972	Offers Over \$630,000	6.300000e+05
973	Price Guide Mid \$300,000	3.000000e+05
974	\$685,000	6.850000e+05
975	UNDER CONTRACT	NaN
976	\$469,000	4.690000e+05
977	Negotiable	NaN
978	\$439,000	4.390000e+05
979	\$299,000 Negotiable	2.990000e+05
980	\$380,000	3.800000e+05
981	Contact Agent	NaN
982	\$339,000	3.390000e+05
983	\$275,000	2.750000e+05
984	\$425,000	4.250000e+05
985	Offers over \$370,000	3.700000e+05
986	OFFERS OVER \$415,000	4.150000e+05
987	\$550,000	5.500000e+05
988	PRICE GUIDE \$1,070,000	1.070000e+06
989	Offers over \$740,000	7.400000e+05
990	UNDER CONTRACT	NaN
991	\$270,000	2.700000e+05
992	\$390,000	3.900000e+05
993	\$495,000	4.950000e+05
994	UNDER CONTRACT	NaN
995	2 Residence	2.000000e+00
996	\$601,000	6.010000e+05
997	\$655,000	6.550000e+05
998	\$675,000	6.750000e+05
999	\$399,000	3.990000e+05

In [35]: `#Converting exponents to float values`

```
c = 0

for x in df["NumericalPrice"]:
    x = str(x)

    if len(x) <= 5:
        x = None

    elif len(x) >= 8:
        count0 = 0

        for n in x:
            if n == "0":
                count0 += 1

        if count0 <= 2:
            x = None

        else:
            x = x[0:6]

    df["NumericalPrice"][c] = x

    c += 1

df[["price", "NumericalPrice"]]
```

`/var/folders/lx/n65071dd57vd71bnx0147lqc0000gn/T/ipykernel_902/4165963430.py:23: SettingWithCopyWarning:`
A value is trying to be set on a copy of a slice from a DataFrame

See the caveats in the documentation: https://pandas.pydata.org/pandas-docs/stable/user_guide/indexing.html#returning-a-view-versus-a-copy
`df["NumericalPrice"][c] = x`

Out[35]:

	price	NumericalPrice
0	\$435,000	435000
1	Offers Over \$320,000	320000
2	\$310,000	310000
3	\$259,000	259000
4	\$439,000	439000
5	\$825,000	825000
6	\$820,000	820000
7	\$369 000	369000
8	\$439,000	439000
9	\$455,000	455000
10	\$280,000	280000
11	Openn Negotiation	None
12	PRICE GUIDE \$439,000	439000
13	\$775,000	775000
14	\$625,000	625000
15	Overs Over \$599,000 Considered	599000
16	\$490,000	490000
17	\$337,500	337500
18	FASTRAK	None
19	\$439,000	439000
20	UNDER CONTRACT	None
21	Offers Over \$440,000	440000
22	\$640,000	640000
23	\$500,000	500000
24	\$305,000 +	305000
25	\$295,000 +	295000
26	\$795,000	795000
27	Offers Over \$950,000	950000
28	Offers Over \$485,000	485000
29	\$250,000	250000

30	\$549,000	549000
31	Offers over \$299,000	299000
32	\$395,000	395000
33	UNDER CONTRACT	None
34	\$475,000	475000
35	Contact Agent	None
36	OFFERS INVITED	None
37	\$465,000	465000
38	Current Bid \$600,000	600000
39	Offers Over \$980,000	980000
40	\$1,050,000	105000
41	UNDER CONTRACT... MORE PROPERTIES WANTED	None
42	\$450,000	450000
43	\$749,000	749000
44	UNDER CONTRACT	None
45	\$289,000	289000
46	\$490,000	490000
47	UNDER CONTRACT	None
48	Offers over \$565,000	565000
49	\$399,000	399000
50	Offers over \$469,000	469000
51	\$649,000	649000
52	Offers Over \$499,000 Considered	499000
53	\$400,000	400000
54	Offers Over \$800,000	800000
55	UNDER CONTRACT	None
56	\$299,000	299000
57	\$580,000	580000
58	Offers Over \$375,000	375000
59	\$489,000	489000
60	OFFERS OVER \$195,000	195000
61	\$505,000	505000
62	\$325,000	325000
63	\$539,000 negotiable	539000
64	\$180,000	180000
65	UNDER CONTRACT	None
66	\$145,000	145000
67	\$215,000	215000
68	\$450,000	450000
69	\$865,000	865000
70	\$400,000	400000
71	\$369,000	369000
72	\$350,000	350000
73	\$549,000	549000
74	Offers over \$539,000	539000
75	UNDER CONTRACT	None
76	\$490,000	490000
77	\$209,000 Negotiate	209000
78	\$420,000	420000
79	UNDER CONTRACT	None
80	\$510,000	510000
81	UNDER CONTRACT	None

82	\$535,000	535000
83	\$335,000	335000
84	UNDER CONTRACT	None
85	Penthouse for \$850,000	850000
86	Needs to GO! \$510,000	510000
87	\$1,300,000	130000
88	Offers Over \$580,000	580000
89	\$470,000	470000
90	Offers over \$539,000	539000
91	\$519,000	519000
92	\$219,000	219000
93	\$235,000 negotiable	235000
94	\$315,000	315000
95	Offers over \$450,000	450000
96	Negotiable	None
97	\$380,000	380000
98	\$275,000	275000
99	PRICE GUIDE \$1,070,000	107000
100	\$270,000	270000
101	\$1,100,000	110000
102	CONTACT AGENT	None
103	Price Guide \$550,000	550000
104	Contact Agent	None
105	\$380,000	380000
106	Offers over \$868,000	868000
107	UNDER CONTRACT	None
108	\$539,000	539000
109	From \$165,000	165000
110	Offers Over: \$130,000	130000
111	\$589,000	589000
112	Offers over \$360,000	360000
113	Offers over \$430,000	430000
114	Offers over \$839,000	839000
115	\$147 000	147000
116	\$270,000	270000
117	PRICE GUIDE \$795,000	795000
118	Offers Over \$430,000	430000
119	Open to offers!	None
120	555,000FurnishedPool, GymLEASED :640 per ...	555000
121	CONTACT AGENT	None
122	Offers over \$529,000	529000
123	\$460,000	460000
124	\$195,000	195000
125	Offers above \$479,000	479000
126	\$295,000	295000
127	\$370,000 ono	370000
128	Motivated Seller- Offers over \$475,000	475000
129	Offers over \$520,000	520000
130	\$449,000	449000
131	\$525,000	525000
132	UNDER CONTRACT	None
133	Offers over \$500,000	500000

134	UNDER CONTRACT	None
135	New Price \$595,000	595000
136	Offers Over \$190,000	190000
137	Under iContract	None
138	Negotiable Above 1.5M	150000
139	\$235,000+	235000
140	\$389,000.00	389000
141	\$370,000	370000
142	\$1,950,000	195000
143	\$175,000	175000
144	\$520,000 O.N.O	520000
145	\$329,000	329000
146	Offers above \$559,000	559000
147	Expressions of Interest	None
148	\$279,000	279000
149	From \$500,000	500000
150	\$280,000	280000
151	\$1,250,000	125000
152	\$800,000	800000
153	280,000to300,000	280000
154	\$449,000	449000
155	Invest Now \$455,000	455000
156	\$450,000 ONO	450000
157	\$685,000	685000
158	\$289,000	289000
159	\$429,000	429000
160	\$559,000	559000
161	\$210,000	210000
162	200,000–250,000	200000
163	Offers over \$300,000	300000
164	\$450,000	450000
165	Offers over \$300,000	300000
166	\$499,000	499000
167	P.O.A.	None
168	\$480,000	480000
169	\$325,000	325000
170	Awaiting Price Guide	None
171	\$440,000	440000
172	FASTRAK	None
173	\$310,000	310000
174	200,000–220,000	200000
175	offers over \$399,000	399000
176	\$430,000	430000
177	\$99,950	99950.0
178	\$900,000 negotiable	900000
179	Price reduction! \$895,000!	895000
180	\$990,000	990000
181	OFFERS OVER \$610,000	610000
182	\$1,199,000	119900
183	\$1,100,000	110000
184	Offers Over \$665,000 Considered	665000
185	\$490,000	490000

186	Openn Negotiation	None
187	PRICE GUIDE \$575,000	575000
188	Bidding from 700k	700000
189	\$435,000	435000
190	Bidding from \$550,000	550000
191	AUCTION	None
192	Offers over \$1,200,000	120000
193	FOR SALE	None
194	\$475,000	475000
195	Offers Over \$320,000	320000
196	Offers over \$365,000	365000
197	\$310,000	310000
198	OFFERS OVER \$700,000	700000
199	Offers Over: 565000	565000
200	\$419,000	419000
201	\$370,000	370000
202	Openn Negotiation	None
203	Openn Negotiation	None
204	OFFERS OVER \$330,000	330000
205	\$560,000	560000
206	Openn Negotiation	None
207	\$460,000 +	460000
208	PRICE GUIDE \$290,000	290000
209	\$420,000	420000
210	Openn Negotiation	None
211	PRICE GUIDE \$570,000	570000
212	\$259,000	259000
213	\$569,000	569000
214	\$439,000	439000
215	Contact Agent	None
216	\$739,000	739000
217	Offers Over \$399,000	399000
218	Auction	None
219	\$599,000	599000
220	FASTRAK	None
221	\$660,000	660000
222	\$430,000	430000
223	Auction	None
224	Auction	None
225	\$250,000	250000
226	Openn Negotiation	None
227	Offers over \$800,000	800000
228	\$880,000	880000
229	FASTRAK	None
230	PRICE GUIDE \$540,000	540000
231	\$825,000	825000
232	Offers Over \$399,000 Considered	399000
233	\$820,000	820000
234	\$549,000	549000
235	Openn Negotiation	None
236	OFFERS OVER \$370,000	370000
237	Offers Over \$500,000 - Offers by 6.30pm 22/6/22	500000

238	\$325,000	325000
239	OVER \$450,000	450000
240	\$430,000	430000
241	Offers over \$450,000	450000
242	Offers Over \$470,000	470000
243	\$612,300	612300
244	\$592,000	592000
245	\$614,000	614000
246	\$218,000	218000
247	\$255,000	255000
248	\$425,000	425000
249	\$325,000	325000
250	\$779,000	779000
251	\$450,000	450000
252	\$425,000	425000
253	\$369 000	369000
254	\$850,000	850000
255	\$539,000	539000
256	\$395,000	395000
257	Offers under \$340,000	340000
258	Openn Negotiation	None
259	\$475,000	475000
260	\$1,050,000	105000
261	\$570,000	570000
262	\$419,000	419000
263	Offers Over \$285,000	285000
264	\$439,000	439000
265	\$470,000 Negotiable	470000
266	Under Offer	None
267	\$365,000	365000
268	\$299,000	299000
269	\$499,000	499000
270	\$420,000 +	420000
271	\$270,000	270000
272	\$280,000	280000
273	Price guide-275, 000– 325,000	275000
274	\$269,000	269000
275	\$750,000	750000
276	Offers above \$285,000	285000
277	\$599,000	599000
278	\$455,000	455000
279	Openn Negotiation	None
280	Expression of Interest	None
281	PRICE GUIDE \$575,000	575000
282	UNDER OFFER	None
283	\$280,000	280000
284	Auction	None
285	\$579,000	579000
286	Expressions Of Interest	None
287	PRICE GUIDE \$530,000	530000
288	UNDER OFFER	None
289	Openn Negotiation	None

290	JUST LIKE THAT: UNDER CONTRACT IN 5 DAYS	None
291	\$739,000	739000
292	PRICE GUIDE \$750,000	750000
293	UNDER CONTRACT	None
294	\$535,000 +	535000
295	\$629,000	629000
296	\$275,000 +	275000
297	PROPERTY PREVIEW	None
298	Offers Over \$550,000	550000
299	\$639,000	639000
300	FASTRAK	None
301	Offers over \$650,000	650000
302	Auction	None
303	UNDER CONTRACT	None
304	Under Contract	None
305	\$329,000	329000
306	Openn Negotiation	None
307	\$385,000	385000
308	\$550,000	550000
309	Offers over \$549,000	549000
310	Offer Over \$300,000	300000
311	\$387,000	387000
312	\$420,000	420000
313	Openn Negotiation	None
314	\$590,000	590000
315	Offers over \$489,000	489000
316	Offers over \$569,000	569000
317	Offers Over \$435,000 Considered	435000
318	\$1,650,000	165000
319	\$293,000	293000
320	\$293,000	293000
321	\$293,000	293000
322	\$495,000	495000
323	PRICE GUIDE \$439,000	439000
324	\$875,000 negotiable	875000
325	Auction Action	None
326	UNDER CONTRACT	None
327	\$380,000	380000
328	\$240,000	240000
329	\$315,000	315000
330	Price Guide \$570,000	570000
331	\$460,000	460000
332	Offers over \$685,000	685000
333	\$775,000	775000
334	\$429,000	429000
335	Offers over \$635,000	635000
336	\$625,000	625000
337	\$580,000	580000
338	Auction - Bidding from \$700,000	700000
339	AUCTION: Saturday 4th Jun @11am On-Site	None
340	\$399,000	399000
341	\$750,000	750000

342	\$480,000	480000
343	Openn Negotiation	None
344	UNDER CONTRACT	None
345	\$529,000	529000
346	Under Contract	None
347	Current Bid \$650,000	650000
348	Overs Over \$599,000 Considered	599000
349	\$659,000	659000
350	PROPERTY PREVIEW	None
351	\$490,000	490000
352	Price Guide High \$500,000	500000
353	Offers over \$405,000	405000
354	PRICE GUIDE \$545,000	545000
355	\$420,000	420000
356	Auction - Wednesday 15th June 2022 at 5.30pm	152022
357	OFFERS OVER \$690,000	690000
358	New to Market	None
359	PRICE GUIDE \$1,200,000	120000
360	Openn Negotiation	None
361	Auction	None
362	PRICE GUIDE \$510,000	510000
363	UNDER CONTRACT	None
364	Offers Over \$750,000	750000
365	UNDER OFFER	None
366	\$337,500	337500
367	FASTRAK	None
368	\$439,000	439000
369	UNDER CONTRACT	None
370	Offers over \$299,000	299000
371	PRICE GUIDE \$490,000	490000
372	\$649,000	649000
373	Auction on site	None
374	Auction 8th June on site	None
375	UNDER CONTRACT	None
376	Under Contract	None
377	Offers Over \$440,000	440000
378	Expressions of Interest	None
379	\$320,000	320000
380	Current Bid \$490,000	490000
381	UNDER CONTRACT	None
382	\$489,000	489000
383	\$665,000	665000
384	AUCTION - Bids from \$630K	630000
385	\$290,000	290000
386	PRICE GUIDE \$298,000	298000
387	FASTRAK	None
388	\$660,000	660000
389	PRICE GUIDE \$690,000	690000
390	PRICE GUIDE \$590,000	590000
391	Current Bid - \$510,000	510000
392	\$400,000	400000
393	Offers above \$420,000	420000

394	\$640,000	640000
395	\$320,000	320000
396	\$695,000	695000
397	Openn Negotiation	None
398	UNDER CONTRACT	None
399	\$275,000	275000
400	Offers over \$285,000	285000
401	Offers over \$660,000 considered	660000
402	\$435,000	435000
403	\$685,000 ONO	685000
404	\$950,000	950000
405	\$500,000	500000
406	\$498,000	498000
407	Current Bid \$740,000	740000
408	\$450,000	450000
409	OFFERS OVER \$700,000	700000
410	\$305,000 +	305000
411	\$295,000 +	295000
412	\$795,000	795000
413	\$425,000	425000
414	Price Guide: 700, 000–720,000	700000
415	\$485,000	485000
416	UNDER CONTRACT	None
417	\$649,000	649000
418	\$665,000 ONO	665000
419	Auction ON SITE	None
420	\$215,000	215000
421	UNDER CONTRACT	None
422	UNDER CONTRACT	None
423	Openn Negotiation	None
424	\$339,000	339000
425	Offers above \$399,000	399000
426	\$735,000	735000
427	\$975,000	975000
428	\$295,000	295000
429	Under Contract	None
430	Auction Wednesday 1st of June 2022	12022.0
431	Offers over \$725,000	725000
432	\$485,000	485000
433	\$485,000	485000
434	Offers Over \$950,000	950000
435	UNDER CONTRACT	None
436	\$610,000	610000
437	Openn Negotiation	None
438	Current Bid \$500,000	500000
439	PRICE GUIDE \$480,000	480000
440	\$449,000	449000
441	\$795,000	795000
442	Price Guide: 520, 000–550,000	520000
443	Offers Over \$620,000	620000
444	UNDER OFFER	None
445	UNDER CONTRACT	None

446	UNDER CONTRACT	None
447	UNDER CONTRACT	None
448	PROPERTY PREVIEW	None
449	UNDER CONTRACT	None
450	Expressions of Interest	None
451	\$550,000	550000
452	\$1,490,000	149000
453	UNDER CONTRACT	None
454	\$292,000	292000
455	Auction Action	None
456	\$475,000	475000
457	Offers Over \$399,000	399000
458	\$520,000	520000
459	Offers over 295,000	295000
460	Offers over \$820,000	820000
461	Offers over \$460,000	460000
462	\$449,000	449000
463	\$220,000	220000
464	\$575,000	575000
465	\$329,000	329000
466	\$529,000	529000
467	\$349,000	349000
468	Offers Over \$485,000	485000
469	\$389000	389000
470	JUST LIKE THAT: UNDER CONTRACT PRIOR TO AUCTION	None
471	\$250,000	250000
472	\$695,000	695000
473	\$735,000	735000
474	OFFERS OVER \$760,000	760000
475	\$535,000	535000
476	\$559,000	559000
477	\$630,000	630000
478	UNDER CONTRACT	None
479	\$429,000	429000
480	Openn Negotiation	None
481	\$300,000	300000
482	Offers Over \$300,000	300000
483	Offers over \$220,000	220000
484	PROPERTY PREVIEW	None
485	\$575,000	575000
486	Offers over \$799,000	799000
487	\$480,000	480000
488	\$549,000	549000
489	Offers over \$299,000	299000
490	\$649,000	649000
491	PRICE GUIDE \$525,000	525000
492	\$380,000	380000
493	\$395,000	395000
494	Auction Action	None
495	\$860,000	860000
496	Accepting Offers Between 275, 000–295,000	275000
497	UNDER CONTRACT	None

498	\$475,000	475000
499	\$485,000	485000
500	Offers over \$675,000	675000
501	\$449,000	449000
502	offers over \$1,250,000	125000
503	\$1,200,000	120000
504	Offers over \$850,000	850000
505	Contact Agent	None
506	\$295,000	295000
507	\$349,000	349000
508	UNDER OFFER	None
509	FASTRAK	None
510	FASTRAK	None
511	UNDER CONTRACT	None
512	PRICE GUIDE \$735,000	735000
513	\$610,000	610000
514	\$625,000	625000
515	\$355,700	355700
516	\$355,700	355700
517	\$359,000	359000
518	\$370,990	370990
519	\$465,000	465000
520	\$325,000	325000
521	Offers over \$700,000	700000
522	OFFERS INVITED	None
523	729,000 <i>DH A lease</i> 934 pwk	729000
524	UNDER CONTRACT	None
525	\$620,000	620000
526	PRICE GUIDE \$1,100,000	110000
527	UNDER CONTRACT	None
528	\$595,000	595000
529	\$380,000	380000
530	\$435,000	435000
531	\$465,000	465000
532	UNDER OFFER	None
533	Offers Over \$859,000	859000
534	Under Contract	None
535	OFFERS OVER \$800,000	800000
536	UNDER CONTRACT	None
537	\$450 000	450000
538	Offers from mid \$800's	None
539	Mid \$500,000 ono	500000
540	Offers Over \$600,000	600000
541	UNDER CONTRACT	None
542	UNDER CONTRACT	None
543	\$325,000	325000
544	Under Contract	None
545	Offers over \$550,000	550000
546	\$489,000	489000
547	PRICE GUIDE \$209,000	209000
548	Offers over \$370,000	370000

549	Offers Over \$290,000	290000
550	Offers over \$630,000	630000
551	\$269,000	269000
552	\$316,000	316000
553	\$115,000	115000
554	\$535,000 +	535000
555	UNDER CONTRACT	None
556	\$1,400,000	140000
557	UNDER CONTRACT	None
558	UNDER CONTRACT	None
559	\$418,000	418000
560	\$385,000	385000
561	OFFERS OVER \$780,000	780000
562	\$460,000 ONO	460000
563	\$410,000	410000
564	\$819,000	819000
565	\$449,000	449000
566	UNDER CONTRACT	None
567	UNDER CONTRACT	None
568	Current Bid \$600,000	600000
569	REDUCED to SELL!!!	None
570	OFFERS OVER \$695k	695000
571	\$339,000 +	339000
572	UNDER CONTRACT	None
573	UNDER CONTRACT	None
574	NEW PRICE \$430,000	430000
575	Offers Over \$980,000	980000
576	\$1,050,000	105000
577	UNDER CONTRACT	None
578	FASTRAK	None
579	\$540,000	540000
580	OVER \$450,000	450000
581	UNDER CONTRACT	None
582	PRICE GUIDE \$830,000	830000
583	JUST LIKE THAT: UNDER CONTRACT	None
584	\$375,000	375000
585	UNDER CONTRACT	None
586	\$515,000	515000
587	UNDER CONTRACT... MORE PROPERTIES WANTED	None
588	\$665,000	665000
589	Offers over \$345,000	345000
590	OFFERS OVER \$505,000	505000
591	\$525,000	525000
592	UNDER CONTRACT	None
593	\$670,000 Negotiable	670000
594	\$625,000	625000
595	\$450,000	450000
596	\$590,000	590000
597	\$749,000	749000
598	UNDER CONTRACT	None
599	\$259,000	259000
600	\$225,000	225000

601	\$548,000	548000
602	OFFERS OVER 399,000	399000
603	PRICE GUIDE \$445,000	445000
604	\$515,000	515000
605	\$349,000	349000
606	\$420,000	420000
607	\$950000 or nearest Offer	950000
608	UNDER CONTRACT	None
609	PRICE GUIDE \$646,000	646000
610	\$485,000	485000
611	\$510,000 each unit	510000
612	From \$220,000	220000
613	\$390,000	390000
614	UNDER CONTRACT	None
615	Under Offer	None
616	\$559,000	559000
617	PRICE GUIDE \$495,000	495000
618	\$525,000	525000
619	\$320,000	320000
620	\$475,000	475000
621	UNDER CONTRACT	None
622	\$555,000	555000
623	\$459,000	459000
624	UNDER OFFER	None
625	NEW PRICE \$279,000	279000
626	UNDER CONTRACT	None
627	OFFERS OVER \$530,000	530000
628	\$289,000	289000
629	Offers Over \$530,000	530000
630	\$490,000	490000
631	UNDER CONTRACT	None
632	\$449,000	449000
633	\$429000	429000
634	Offers Over \$399,000	399000
635	\$389,000	389000
636	\$575,000	575000
637	\$589,500	589500
638	Offers Over \$600,000	600000
639	\$485,000	485000
640	UNDER CONTRACT	None
641	UNDER CONTRACT	None
642	Contact Agent	None
643	UNDER CONTRACT	None
644	Offers over \$850,000	850000
645	Under Contract	None
646	UNDER CONTRACT	None
647	\$165,000	165000
648	\$355,000	355000
649	Offers over \$399,000	399000
650	Offers over \$565,000	565000
651	UNDER CONTRACT	None
652	PRICE GUIDE \$330,000	330000

653	Offers invited \$440,000	440000
654	Price Guide: 650,000–700,000	650000
655	\$399,000	399000
656	\$479,000	479000
657	Offers over \$469,000	469000
658	\$410,000	410000
659	UNDER CONTRACT	None
660	\$620,000	620000
661	PRICE GUIDE \$1,200,000	120000
662	Offers Over \$775,000	775000
663	UNDER CONTRACT	None
664	\$580,000	580000
665	PRICE GUIDE \$329,000	329000
666	UNDER CONTRACT	None
667	Offers over \$1.2m	120000
668	\$660,000	660000
669	\$649,000	649000
670	\$899,000	899000
671	\$1,100,000	110000
672	\$420,000	420000
673	\$335,000	335000
674	Offers above \$799,000	799000
675	JUST LIKE THAT: UNDER CONTRACT IN 7 DAYS	None
676	JUST LIKE THAT: UNDER CONTRACT	None
677	NEW PRICE \$639,000	639000
678	\$499,000 O.N.O	499000
679	\$1,800,000	180000
680	Offers Over \$499,000 Considered	499000
681	UNDER CONTRACT	None
682	\$400,000	400000
683	\$279,000	279000
684	Offers welcome \$695K	695000
685	OVER \$900,000	900000
686	\$575,000	575000
687	\$380,000	380000
688	\$345,000 ONO	345000
689	Under Contract	None
690	Offers above \$859,000	859000
691	Offers over \$740,000	740000
692	\$569,000	569000
693	\$490,000	490000
694	\$600,000	600000
695	Offers Over \$700,000	700000
696	\$290,000	290000
697	Offers Over \$599,000	599000
698	Offers Over \$800,000	800000
699	\$720,000	720000
700	Range 600,000–650,000	600000
701	\$430,000	430000
702	Under Contract	None
703	UNDER CONTRACT	None
704	UNDER CONTRACT	None

705	UNDER CONTRACT	None
706	FASTRAK	None
707	Reduced Offers Over \$330,000	330000
708	UNDER CONTRACT	None
709	Offers Over \$580,000	580000
710	Offers over \$400,000	400000
711	Offers Over \$849,000	849000
712	\$225,000	225000
713	\$250,000	250000
714	\$387,000	387000
715	\$210,000	210000
716	\$599,000	599000
717	\$299,000	299000
718	UNDER CONTRACT	None
719	\$475,000	475000
720	Offers over \$679,000 considered	679000
721	\$560,000 +	560000
722	\$475,000	475000
723	\$319,000	319000
724	\$520,000	520000
725	\$639,000	639000
726	OFFERS OVER \$750,000	750000
727	\$334,000	334000
728	Awaiting Price Guide	None
729	UNDER CONTRACT	None
730	\$460k NEGOTIABLE	None
731	\$439,000	439000
732	Offers Over \$550,000	550000
733	\$580,000	580000
734	\$580,000	580000
735	Offers Over \$375,000	375000
736	\$495,000	495000
737	\$545,000 (over 1000sqm of land)	545000
738	\$429,000	429000
739	PRICE GUIDE \$1,090,000	109000
740	\$550,000	550000
741	\$480,000	480000
742	\$489,000	489000
743	\$599,000	599000
744	\$489,000	489000
745	\$550,000	550000
746	UNDER CONTRACT	None
747	OFFERS OVER \$700,000	700000
748	\$620,000	620000
749	\$399,000	399000
750	\$485,000	485000
751	Under Offer	None
752	Offers Over \$620,000 Considered	620000
753	PRICE GUIDE \$390,000	390000
754	\$620,000	620000
755	Overs over \$320,000	320000
756	OFFERS OVER \$195,000	195000

757	\$435,000	435000
758	\$895,000	895000
759	\$505,000	505000
760	PRICED TO SELL \$719,000!	719000
761	\$470,000	470000
762	\$149,000	149000
763	\$480,000	480000
764	\$789,000	789000
765	\$325,000	325000
766	\$495,000	495000
767	\$539,000 negotiable	539000
768	\$457,000	457000
769	\$350,000	350000
770	\$600,000	600000
771	offers above \$510,000	510000
772	\$180,000	180000
773	\$600,000	600000
774	\$489,000	489000
775	Open to Offers around \$499,000	499000
776	\$650,000 +	650000
777	FASTRAK	None
778	\$420,000	420000
779	UNDER CONTRACT	None
780	\$830 000	830000
781	\$400,000	400000
782	UNDER CONTRACT... MORE PROPERTIES WANTED	None
783	\$450,000	450000
784	UNDER CONTRACT	None
785	Offers over \$380,000	380000
786	\$299,000	299000
787	\$635,000 +	635000
788	\$1,050,000	105000
789	Under Contract	None
790	Offers Over \$199,000	199000
791	\$570,000	570000
792	UNDER CONTRACT	None
793	\$899,000	899000
794	\$419,000	419000
795	\$145,000	145000
796	UNDER CONTRACT	None
797	\$289,000 obo	289000
798	\$499,000 +	499000
799	\$595,000	595000
800	Offers Over: \$499,000	499000
801	\$399,000	399000
802	UNDER CONTRACT	None
803	\$215,000	215000
804	Offers over \$480,000	480000
805	Offers Over \$339,000 Considered	339000
806	Offers Over \$340,000	340000
807	OFFERS OVER \$490,000	490000
808	Offers Over \$500,000 Considered	500000

809	\$375,000	375000
810	\$462,500	462500
811	All Reasonable Offers Considered	None
812	\$410,000	410000
813	OFFERS OVER \$550,000	550000
814	\$430,000	430000
815	\$320,000	320000
816	\$450,000	450000
817	\$430,000	430000
818	\$865,000	865000
819	\$740,000	740000
820	PRICE GUIDE \$895,000	895000
821	Offers Over \$255,000	255000
822	Offers Over \$775,000	775000
823	\$400,000	400000
824	High \$400,000s	400000
825	Offers Over \$449,000	449000
826	\$780,000	780000
827	\$1,200,000	120000
828	\$369,000	369000
829	UNDER CONTRACT	None
830	\$260,000	260000
831	525,000–535,000	525000
832	Offers Over \$765,000 Considered	765000
833	Expressions of Interest	None
834	\$350,000	350000
835	\$549,000	549000
836	UNDER CONTRACT	None
837	Offers over \$539,000	539000
838	UNDER CONTRACT	None
839	UNDER CONTRACT	None
840	UNDER OFFER	None
841	\$490,000	490000
842	FASTRAK	None
843	\$550,000	550000
844	Offers over \$480,000	480000
845	\$289,000	289000
846	UNDER CONTRACT	None
847	\$209,000 Negotiate	209000
848	\$849,000	849000
849	\$770,000	770000
850	\$525,000	525000
851	Awaiting Price Guide	None
852	\$420,000	420000
853	UNDER CONTRACT	None
854	\$510,000	510000
855	UNDER CONTRACT	None
856	\$570,000	570000
857	\$549,000	549000
858	Offers over \$730,000	730000
859	\$590,000	590000
860	UNDER CONTRACT	None

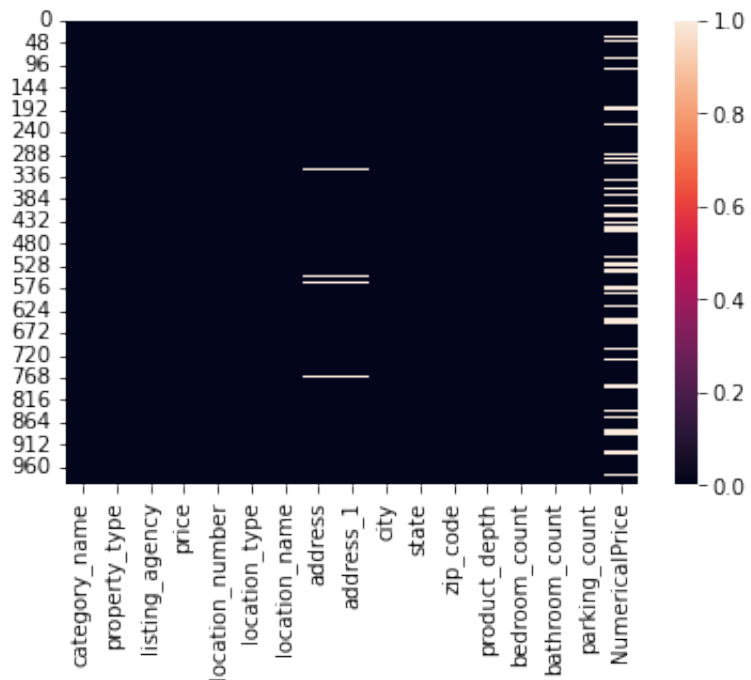
861	Offers Over \$575,000	575000
862	Offers Over \$350,000	350000
863	Offers Over \$500,000 will be considered	500000
864	\$535,000	535000
865	\$325,000	325000
866	UNDER CONTRACT	None
867	\$335,000	335000
868	UNDER CONTRACT	None
869	Offers Over \$780,000 Invited	780000
870	Penthouse for \$850,000	850000
871	O/O \$750,000	750000
872	Needs to GO! \$510,000	510000
873	\$560,000	560000
874	Under Contract	None
875	\$440,000	440000
876	Offers Over \$295,000	295000
877	\$610,000	610000
878	From \$370,000	370000
879	\$359,000	359000
880	FASTRAK	None
881	UNDER CONTRACT	None
882	UNDER CONTRACT	None
883	UNDER CONTRACT	None
884	\$595,000	595000
885	UNDER CONTRACT	None
886	\$1,300,000	130000
887	MASSIVE PRICE REDUCTION!! NOW \$277,500	277500
888	UNDER CONTRACT	None
889	Under Contract	None
890	UNDER CONTRACT	None
891	Under contract	None
892	\$650,000	650000
893	Low - Mid \$200,000	200000
894	\$385,000	385000
895	Offers Over \$500,000	500000
896	\$570000 neg	570000
897	\$625,000	625000
898	\$520,000	520000
899	High \$500,000 ono	500000
900	\$345,000 Negotiable	345000
901	PRICE REDUCED - \$475,000	475000
902	\$360,000	360000
903	\$399,000	399000
904	\$1,100,000 Duplex Investment	110000
905	Offers Over \$580,000	580000
906	\$409,000	409000
907	\$470,000 ONO	470000
908	\$283,000	283000
909	UNDER CONTRACT	None
910	Offers Over \$699,000	699000
911	UNDER CONTRACT	None
912	\$390,000+	390000

913	\$615,000	615000
914	\$645,000	645000
915	\$599,000	599000
916	Contact Agent	None
917	\$615,000	615000
918	\$370,000	370000
919	\$515,000	515000
920	\$675,000	675000
921	\$289,000	289000
922	\$480,000	480000
923	OFFERS OVER \$500,000	500000
924	FASTRAK	None
925	Offers Over \$299,000	299000
926	\$615,000	615000
927	UNDER CONTRACT	None
928	PRICE GUIDE \$260,000	260000
929	\$675,000	675000
930	\$515,000	515000
931	UNDER CONTRACT	None
932	\$545,000	545000
933	UNDER OFFER	None
934	\$470,000	470000
935	Offers over \$539,000	539000
936	\$475,000	475000
937	Under Offer	None
938	Offers over \$360,000	360000
939	\$449,000	449000
940	\$479,000	479000
941	\$370,000	370000
942	\$519,000	519000
943	\$540,000	540000
944	\$219,000	219000
945	Offers over \$385,000	385000
946	Price Guide Low \$700,000	700000
947	\$499,000	499000
948	OFFERS OVER \$1,200,000	120000
949	Under Contract	None
950	Offers invited \$539,000	539000
951	Offers over \$600,000 Considered	600000
952	\$235,000 negotiable	235000
953	Offers Over \$499,000	499000
954	\$1.15m	115000
955	\$699,000	699000
956	PRICE GUIDE \$395,000	395000
957	PRICE DROP \$645k	645000
958	\$269,000	269000
959	\$3,990,000	399000
960	Offers over \$419,000	419000
961	Offers over \$380,000	380000
962	\$430,000	430000
963	\$244,000	244000
964	\$599,000	599000

965	Offers Over \$480,000	480000
966	\$560,000	560000
967	\$315,000	315000
968	585,000 & 595,000	585000
969	\$1,550,000	155000
970	Offers over \$450,000	450000
971	Under Offer	None
972	Offers Over \$630,000	630000
973	Price Guide Mid \$300,000	300000
974	\$685,000	685000
975	UNDER CONTRACT	None
976	\$469,000	469000
977	Negotiable	None
978	\$439,000	439000
979	\$299,000 Negotiable	299000
980	\$380,000	380000
981	Contact Agent	None
982	\$339,000	339000
983	\$275,000	275000
984	\$425,000	425000
985	Offers over \$370,000	370000
986	OFFERS OVER \$415,000	415000
987	\$550,000	550000
988	PRICE GUIDE \$1,070,000	107000
989	Offers over \$740,000	740000
990	UNDER CONTRACT	None
991	\$270,000	270000
992	\$390,000	390000
993	\$495,000	495000
994	UNDER CONTRACT	None
995	2 Residence	None
996	\$601,000	601000
997	\$655,000	655000
998	\$675,000	675000
999	\$399,000	399000

```
In [36]: sns.heatmap(df.isnull())
```

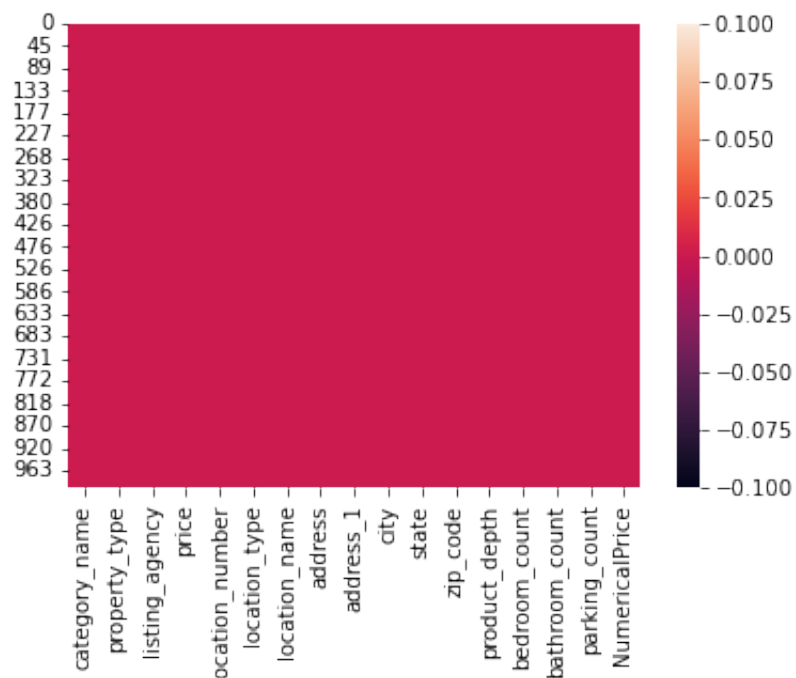
```
Out[36]: <AxesSubplot:>
```



```
In [37]: #Dropping all nulls
df.dropna(axis = 0, how = "any", inplace = True)
```

```
In [38]: sns.heatmap(df.isnull())
```

Out[38]: <AxesSubplot:>



```
In [39]: #Final price values
df["NumericalPrice"]
```

```
Out[39]:
0      435000
1      320000
2      310000
3      259000
4      439000
5      825000
6      820000
7      369000
8      439000
9      455000
10     280000
12     439000
13     775000
14     625000
15     599000
16     490000
17     337500
19     439000
21     440000
22     640000
23     500000
24     305000
25     295000
26     795000
27     950000
28     485000
29     250000
30     549000
31     299000
32     395000
34     475000
37     465000
38     600000
39     980000
40     105000
42     450000
43     749000
45     289000
46     490000
48     565000
49     399000
50     469000
51     649000
52     499000
53     400000
54     800000
56     299000
57     580000
58     375000
59     489000
60     195000
61     505000
62     325000
63     539000
64     180000
66     145000
```

67	215000
68	450000
69	865000
70	400000
71	369000
72	350000
73	549000
74	539000
76	490000
77	209000
78	420000
80	510000
82	535000
83	335000
85	850000
86	510000
87	130000
88	580000
89	470000
90	539000
91	519000
92	219000
93	235000
94	315000
95	450000
97	380000
98	275000
99	107000
100	270000
101	110000
103	550000
105	380000
106	868000
108	539000
109	165000
110	130000
111	589000
112	360000
113	430000
114	839000
115	147000
116	270000
117	795000
118	430000
120	555000
122	529000
123	460000
124	195000
125	479000
126	295000
127	370000
128	475000
129	520000
130	449000
131	525000
133	500000
135	595000
136	190000
138	150000
139	235000
140	389000
141	370000
142	195000
143	175000
144	520000
145	329000
146	559000
148	279000
149	500000
150	280000
151	125000
152	800000
153	280000
154	449000
155	455000
156	450000
157	685000
158	289000
159	429000
160	559000
161	210000
162	200000
163	300000
164	450000
165	300000
168	480000
169	325000
171	440000

173	310000
174	200000
175	399000
176	430000
177	99950.0
178	900000
179	895000
180	990000
181	610000
182	119900
183	110000
184	665000
185	490000
187	575000
188	700000
189	435000
190	550000
192	120000
194	475000
195	320000
196	365000
197	310000
198	700000
199	565000
200	419000
201	370000
204	330000
205	560000
207	460000
208	290000
209	420000
211	570000
212	259000
213	569000
214	439000
216	739000
217	399000
219	599000
221	660000
222	430000
225	250000
227	800000
228	880000
230	540000
231	825000
232	399000
233	820000
234	549000
236	370000
237	500000
238	325000
239	450000
240	430000
241	450000
242	470000
243	612300
244	592000
245	614000
246	218000
247	255000
248	425000
249	325000
250	779000
251	450000
252	425000
253	369000
254	850000
255	539000
256	395000
257	340000
259	475000
260	105000
261	570000
262	419000
263	285000
264	439000
265	470000
267	365000
268	299000
269	499000
270	420000
271	270000
272	280000
273	275000
274	269000
275	750000
276	285000
277	599000

278	455000
281	575000
283	280000
285	579000
287	530000
291	739000
292	750000
294	535000
295	629000
296	275000
298	550000
299	639000
301	650000
305	329000
307	385000
308	550000
309	549000
310	300000
311	387000
312	420000
314	590000
315	489000
316	569000
317	435000
318	165000
321	293000
322	495000
323	439000
324	875000
327	380000
328	240000
329	315000
330	570000
331	460000
332	685000
333	775000
334	429000
335	635000
336	625000
337	580000
338	700000
340	399000
341	750000
342	480000
345	529000
347	650000
348	599000
349	659000
351	490000
352	500000
353	405000
354	545000
356	152022
357	690000
359	120000
362	510000
364	750000
366	337500
368	439000
370	299000
371	490000
372	649000
377	440000
379	320000
380	490000
382	489000
383	665000
384	630000
385	290000
386	298000
388	660000
389	690000
390	590000
391	510000
392	400000
393	420000
394	640000
395	320000
396	695000
399	275000
400	285000
401	660000
402	435000
403	685000
404	950000
405	500000
406	498000
407	740000

408	450000
409	700000
410	305000
411	295000
412	795000
413	425000
414	700000
415	485000
417	649000
418	665000
420	215000
424	339000
425	399000
426	735000
427	975000
428	295000
430	12022.0
431	725000
432	485000
433	485000
434	950000
436	610000
438	500000
439	480000
440	449000
441	795000
442	520000
443	620000
451	550000
452	149000
454	292000
456	475000
457	399000
458	520000
459	295000
460	820000
461	460000
462	449000
463	220000
464	575000
465	329000
466	529000
467	349000
468	485000
469	389000
471	250000
472	695000
473	735000
474	760000
475	535000
476	559000
477	630000
479	429000
481	300000
482	300000
483	220000
485	575000
486	799000
487	480000
488	549000
489	299000
490	649000
491	525000
492	380000
493	395000
495	860000
496	275000
498	475000
499	485000
500	675000
501	449000
502	125000
503	120000
504	850000
506	295000
507	349000
512	735000
513	610000
514	625000
515	355700
516	355700
517	359000
518	370990
519	465000
520	325000
521	700000
525	620000
526	110000

528	595000
529	380000
530	435000
531	465000
533	859000
535	800000
537	450000
539	500000
540	600000
543	325000
545	550000
546	489000
547	209000
548	370000
549	290000
551	269000
552	316000
553	115000
554	535000
556	140000
559	418000
560	385000
561	780000
562	460000
563	410000
565	449000
568	600000
570	695000
571	339000
574	430000
575	980000
576	105000
579	540000
580	450000
582	830000
584	375000
586	515000
588	665000
589	345000
590	505000
591	525000
593	670000
594	625000
595	450000
596	590000
597	749000
599	259000
600	225000
601	548000
602	399000
603	445000
604	515000
605	349000
606	420000
607	950000
609	646000
610	485000
611	510000
612	220000
613	390000
616	559000
617	495000
618	525000
619	320000
620	475000
622	555000
623	459000
625	279000
627	530000
628	289000
629	530000
630	490000
632	449000
633	429000
634	399000
635	389000
636	575000
637	589500
638	600000
639	485000
644	850000
647	165000
648	355000
649	399000
650	565000
652	330000
653	440000
654	650000

655	399000
656	479000
657	469000
658	410000
660	620000
661	120000
662	775000
664	580000
665	329000
667	120000
668	660000
669	649000
670	899000
671	110000
672	420000
673	335000
674	799000
677	639000
678	499000
679	180000
680	499000
682	400000
683	279000
684	695000
685	900000
686	575000
687	380000
688	345000
690	859000
691	740000
692	569000
693	490000
694	600000
695	700000
696	290000
697	599000
698	800000
699	720000
700	600000
701	430000
707	330000
709	580000
710	400000
711	849000
712	225000
713	250000
714	387000
715	210000
716	599000
717	299000
719	475000
720	679000
721	560000
722	475000
723	319000
724	520000
725	639000
726	750000
727	334000
731	439000
732	550000
733	580000
734	580000
735	375000
736	495000
737	545000
738	429000
739	109000
740	550000
741	480000
742	489000
743	599000
744	489000
745	550000
747	700000
748	620000
749	399000
750	485000
752	620000
753	390000
754	620000
755	320000
756	195000
757	435000
758	895000
759	505000
761	470000
762	149000

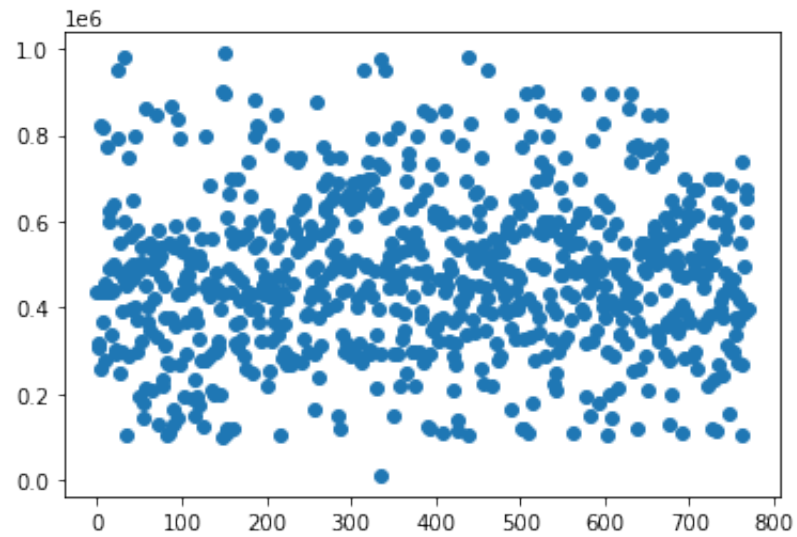
763	480000
764	789000
765	325000
767	539000
768	457000
769	350000
770	600000
771	510000
772	180000
773	600000
774	489000
775	499000
776	650000
778	420000
780	830000
781	400000
783	450000
785	380000
786	299000
787	635000
788	105000
790	199000
791	570000
793	899000
794	419000
795	145000
797	289000
798	499000
799	595000
800	499000
801	399000
803	215000
804	480000
805	339000
806	340000
807	490000
808	500000
809	375000
810	462500
812	410000
813	550000
814	430000
815	320000
816	450000
817	430000
818	865000
819	740000
820	895000
821	255000
822	775000
823	400000
824	400000
825	449000
826	780000
827	120000
828	369000
830	260000
831	525000
832	765000
834	350000
835	549000
837	539000
841	490000
843	550000
844	480000
845	289000
847	209000
848	849000
849	770000
850	525000
852	420000
854	510000
857	549000
858	730000
859	590000
861	575000
862	350000
863	500000
864	535000
865	325000
867	335000
869	780000
870	850000
871	750000
872	510000
873	560000
875	440000
876	295000

877	610000
878	370000
879	359000
884	595000
886	130000
887	277500
892	650000
893	200000
894	385000
895	500000
896	570000
897	625000
898	520000
899	500000
900	345000
901	475000
902	360000
903	399000
904	110000
905	580000
906	409000
907	470000
908	283000
910	699000
912	390000
913	615000
914	645000
915	599000
917	615000
918	370000
919	515000
920	675000
921	289000
922	480000
923	500000
925	299000
926	615000
928	260000
929	675000
930	515000
932	545000
934	470000
935	539000
936	475000
938	360000
939	449000
940	479000
941	370000
942	519000
943	540000
944	219000
945	385000
946	700000
947	499000
948	120000
950	539000
951	600000
952	235000
953	499000
954	115000
955	699000
956	395000
957	645000
958	269000
959	399000
960	419000
961	380000
962	430000
963	244000
964	599000
965	480000
966	560000
967	315000
968	585000
969	155000
970	450000
972	630000
973	300000
974	685000
976	469000
978	439000
979	299000
980	380000
982	339000
983	275000
984	425000
985	370000
986	415000

```
987 550000
988 107000
989 740000
991 270000
992 390000
993 495000
996 601000
997 655000
998 675000
999 399000
Name: NumericalPrice, dtype: object
```

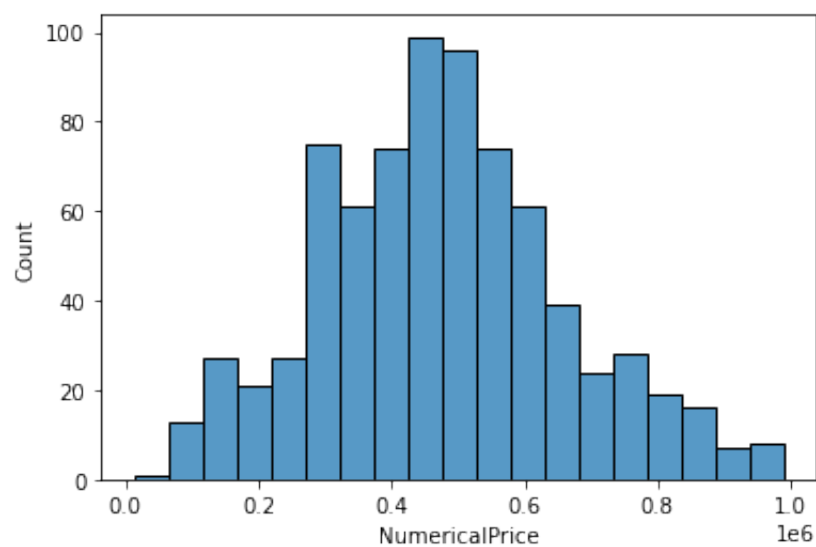
```
In [40]: plt.scatter(x = [i for i in range(len(df))], y = df["NumericalPrice"].astype("float"))
```

```
Out[40]: <matplotlib.collections.PathCollection at 0x7fbb7f604df0>
```



```
In [41]: #Linear Regression.
sns.histplot(df["NumericalPrice"].astype("float"))
```

```
Out[41]: <AxesSubplot:xlabel='NumericalPrice', ylabel='Count'>
```



```
In [42]: #converting numerical price to float type
df["NumericalPrice"] = df["NumericalPrice"].astype("float")
```

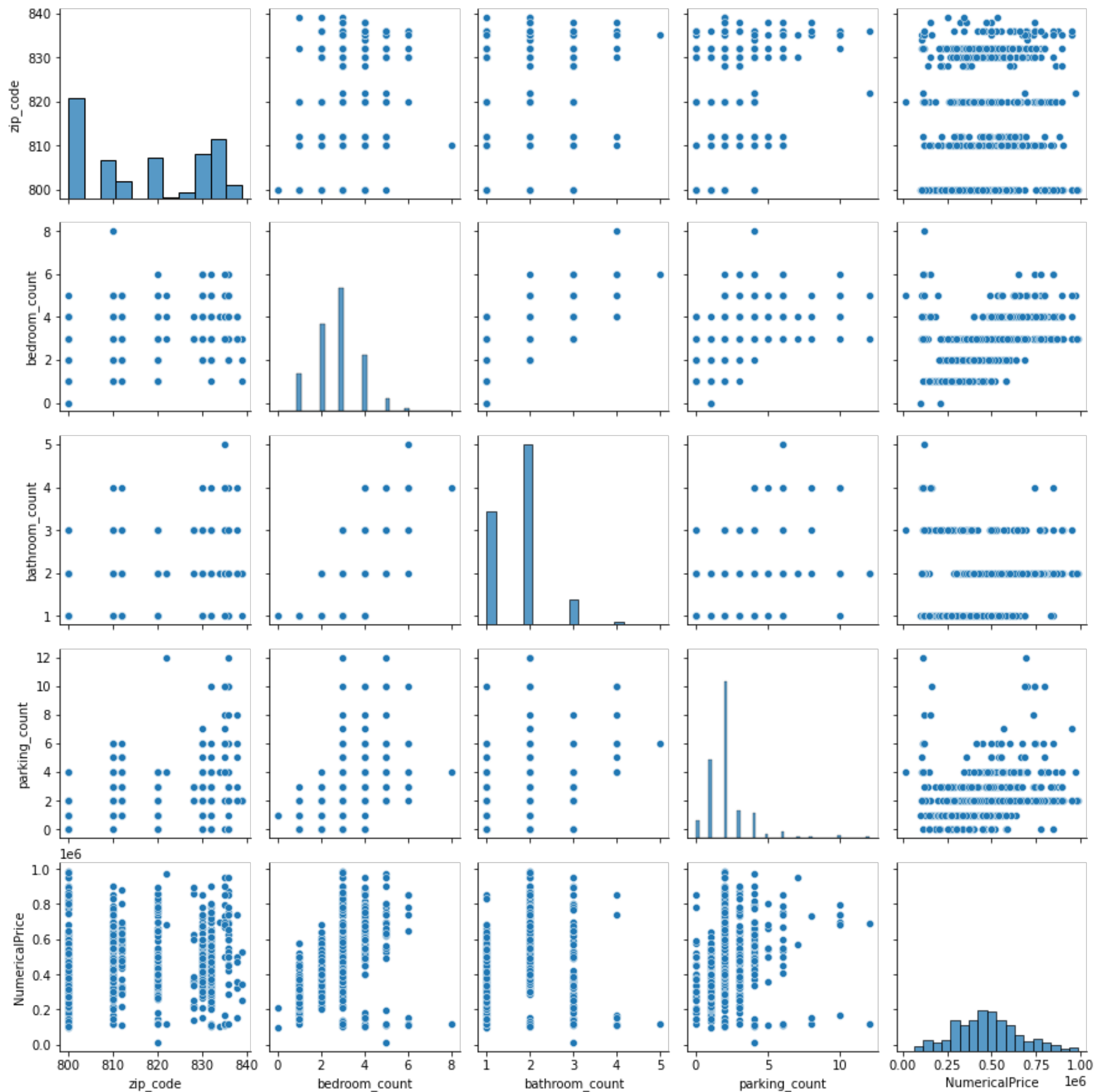
```
In [43]: df.columns
```

```
Out[43]: Index(['category_name', 'property_type', 'listing_agency', 'price',
            'location_number', 'location_type', 'location_name', 'address',
            'address_1', 'city', 'state', 'zip_code', 'product_depth',
            'bedroom_count', 'bathroom_count', 'parking_count', 'NumericalPrice'],
            dtype='object')
```

```
In [44]: #New & Final Data Frame
newdf = df[["property_type", "zip_code", "bedroom_count", "bathroom_count", "parking_count", "NumericalPrice"]]
```

```
In [45]: #Correlation
sns.pairplot(data = newdf)
```

```
Out[45]: <seaborn.axisgrid.PairGrid at 0x7fbb7f831550>
```

```
In [46]: #Dummy values
newdf = pd.get_dummies(newdf)
newdf.head()
```

```
Out[46]:
```

	zip_code	bedroom_count	bathroom_count	parking_count	NumericalPrice	property_type_Acreage	property_type_Apartment	property
0	800	2.0	1.0	1.0	435000.0	0	0	
1	800	3.0	2.0	2.0	320000.0	0	1	
2	800	2.0	1.0	1.0	310000.0	0	0	
3	800	1.0	1.0	0.0	259000.0	0	0	
4	800	3.0	2.0	2.0	439000.0	0	0	

```
In [47]: #Create the X Features Variable and Y the Predicted Variable

from sklearn.linear_model import LinearRegression as LR

x = newdf.drop("NumericalPrice", axis = 1, inplace= False)
y = newdf["NumericalPrice"]
```

```
In [48]: #Split the DataSet into a TrainSet and a TestSet

from sklearn.model_selection import train_test_split as TTS

xTrain, xTest, yTrain, yTest = TTS(x, y, test_size = 0.3)
```

```
In [49]: #Linear Regression

LR_ = LR()

LR_.fit(xTrain, yTrain)

preds = LR_.predict(xTest)
```

```
In [50]: from sklearn.metrics import mean_squared_error as MSE
from sklearn.metrics import mean_absolute_error as MAE
from sklearn.metrics import r2_score as R2
```

```
In [51]: mae = MAE(preds, yTest)
mse = MSE(preds, yTest)
rmse = MSE(preds, yTest, squared=False)
r2 = R2(preds, yTest)
```

```
In [52]: print(mae)
print(mse)
print(rmse)
print(r2)

96522.41240970462
18943853312.202003
137636.6713932083
-0.8966946195551255
```

By Looking at the Errors, we can conclude that the Linear Regression is not the best Model to fit our Data. Since we have Non-Linear Data, but we Still need to Address a Regression Problem, we will Try out 2 more Models:

K Nearest Neighbors Regressor Decision Tree Regressor

```
In [53]: #We Resize the Unit of Our Prices for Convenience Purposes

newdf["RoundedPrice"] = newdf["NumericalPrice"].apply(lambda x: x/100000)
```

```
In [54]: from sklearn.neighbors import KNeighborsRegressor as KNR
from sklearn.tree import DecisionTreeRegressor as DTR
from sklearn.model_selection import GridSearchCV as GSCV

x = newdf.drop("RoundedPrice", axis = 1, inplace=False)
y = newdf["RoundedPrice"]
xTrain, xTest, yTrain, yTest = TTS(x, y, test_size = 0.3)
```

```
In [55]: #Parameter tuning

Parameters = {'n_neighbors': [1, 2, 3, 4, 5, 6, 7, 8, 9, 10],
              'algorithm': ['auto', 'ball_tree', 'kd_tree', 'brute'],
              'p': [1,2]}

KNN = KNR()

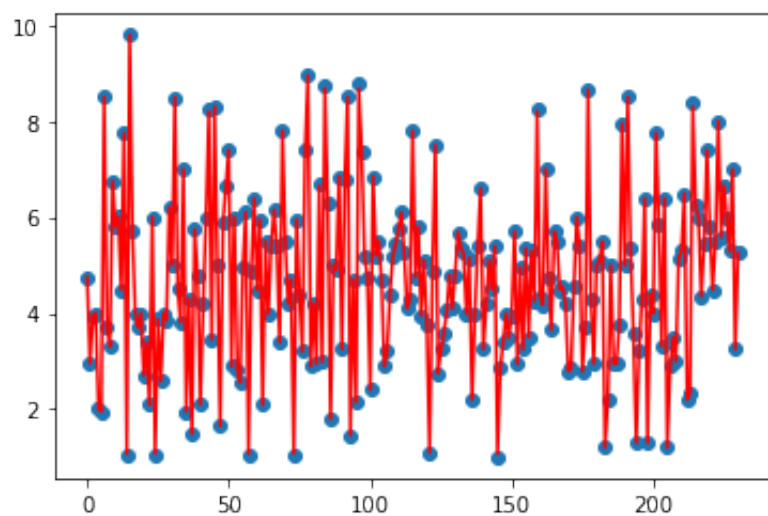
KNN_CV = GSCV(KNN, Parameters, cv = 10)
KNN_CV.fit(xTrain, yTrain)
KNN_CV.best_params_
```

```
Out[55]: {'algorithm': 'auto', 'n_neighbors': 1, 'p': 1}
```

```
In [56]: Preds = KNN_CV.predict(xTest)
```

```
In [57]: plt.scatter(x = [i for i in range(len(yTest))], y = yTest)
plt.plot(Preds, color = "red")
```

```
Out[57]: [<matplotlib.lines.Line2D at 0x7fbb81f57100>]
```



```
In [58]: KNNMAE = MAE(yTest, Preds)
KNNMSE = MSE(yTest, Preds)
KNNRMSE = MSE(yTest, Preds, squared = False)
KNNR2 = R2(yTest, Preds)
```

```
In [59]: Errors =
pd.DataFrame(data = [KNNMAE, KNNMSE, KNNRMSE, KNNR2], index = ["MAE", "MSE", "RMSE", "R2"], columns = ["KNR"])
```

```
In [60]: Errors
```

```
Out[60]:
```

KNR	
MAE	0.004366
MSE	0.000228
RMSE	0.015108
R2	0.999933

```
In [61]: from sklearn.model_selection import cross_val_score as CrossVal

S = CrossVal(KNN_CV, x, y, cv = 10)
S
```

```
Out[61]: array([1.          , 0.99991606, 0.99997034, 0.99993879, 0.99733808,
        0.99997504, 0.99998958, 0.99997527, 0.99996503, 0.99995697])
```

```
In [62]: Parameters = {'criterion': ["squared_error", "friedman_mse", "absolute_error", "poisson"],
                    'splitter': ['best', 'random'],
                    'max_depth': [2*n for n in range(1,10)],
                    'max_features': ['auto', 'sqrt', "log2"],
                    'min_samples_leaf': [1, 2, 4],
                    'min_samples_split': [2, 5, 10]}

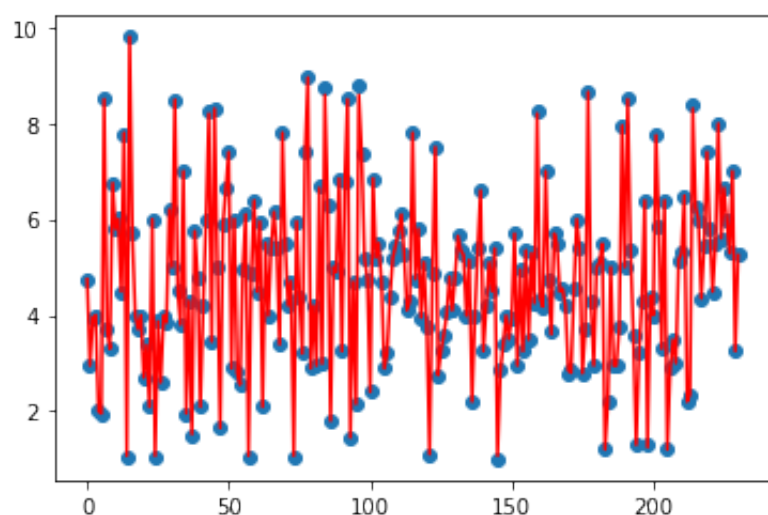
Tree = DTR()
TreeCV = GSCV(Tree, Parameters, cv = 10)
TreeCV.fit(xTrain, yTrain)
```

```
Out[62]: GridSearchCV(cv=10, estimator=DecisionTreeRegressor(),
                    param_grid={'criterion': ['squared_error', 'friedman_mse',
                    'absolute_error', 'poisson'],
                    'max_depth': [2, 4, 6, 8, 10, 12, 14, 16, 18],
                    'max_features': ['auto', 'sqrt', 'log2'],
                    'min_samples_leaf': [1, 2, 4],
                    'min_samples_split': [2, 5, 10],
                    'splitter': ['best', 'random']})
```

```
In [63]: Preds = TreeCV.predict(xTest)
```

```
In [64]: plt.scatter(x = [i for i in range(len(yTest))], y = yTest)
plt.plot(Preds, color = "red")
```

```
Out[64]: [<matplotlib.lines.Line2D at 0x7fbb7ead26a0>]
```



```
In [65]: TreeMAE = MAE(yTest, Preds)
TreeMSE = MSE(yTest, Preds)
TreeRMSE = MSE(yTest, Preds, squared = False)
TreeR2 = R2(yTest, Preds)
```

```
In [68]: Errors["DTR"] = [TreeMAE, TreeMSE, TreeRMSE, TreeR2]
Errors["LinearRegression"] = [mae/100000, mse/100000, rmse/100000, r2]
```

```
In [71]: Errors
```

```
Out[71]:
```

	KNR	DTR	LinearRegression
MAE	0.004366	0.007548	0.965224
MSE	0.000228	0.000545	189438.533122
RMSE	0.015108	0.023351	1.376367
R2	0.999933	0.999839	-0.896695

As we Can Conclude, Both DecisionTreeRegressor and KNearestNeighborRegressor can fit the Data with Relatively Low Errors.