

```
In [1]: import pandas as pd
import seaborn as sns
import numpy as np
```

```
In [2]: #Boxplot

df = pd.read_csv('MagicBricks.csv')
```

```
In [3]: df
```

```
Out[3]:
```

| | Area | BHK | Bathroom | Furnishing | Locality | Parking | Price | Status | Transact |
|------|---------|-----|----------|----------------|---------------------------------------------------|---------|----------|---------------|----------|
| 0 | 800.0 | 3 | 2.0 | Semi-Furnished | Rohini Sector 25 | 1.0 | 6500000 | Ready_to_move | New_Prop |
| 1 | 750.0 | 2 | 2.0 | Semi-Furnished | J R Designers Floors, Rohini Sector 24 | 1.0 | 5000000 | Ready_to_move | New_Prop |
| 2 | 950.0 | 2 | 2.0 | Furnished | Citizen Apartment, Rohini Sector 13 | 1.0 | 15500000 | Ready_to_move | Re |
| 3 | 600.0 | 2 | 2.0 | Semi-Furnished | Rohini Sector 24 | 1.0 | 4200000 | Ready_to_move | Re |
| 4 | 650.0 | 2 | 2.0 | Semi-Furnished | Rohini Sector 24 carpet area 650 sqft status R... | 1.0 | 6200000 | Ready_to_move | New_Prop |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 1254 | 4118.0 | 4 | 5.0 | Unfurnished | Chittaranjan Park | 3.0 | 55000000 | Ready_to_move | New_Prop |
| 1255 | 1050.0 | 3 | 2.0 | Semi-Furnished | Chittaranjan Park | 3.0 | 12500000 | Ready_to_move | Re |
| 1256 | 875.0 | 3 | 3.0 | Semi-Furnished | Chittaranjan Park | 3.0 | 17500000 | Ready_to_move | New_Prop |
| 1257 | 990.0 | 2 | 2.0 | Unfurnished | Chittaranjan Park Block A | 1.0 | 11500000 | Ready_to_move | Re |
| 1258 | 11050.0 | 3 | 3.0 | Unfurnished | Chittaranjan Park | 1.0 | 18500000 | Ready_to_move | New_Prop |

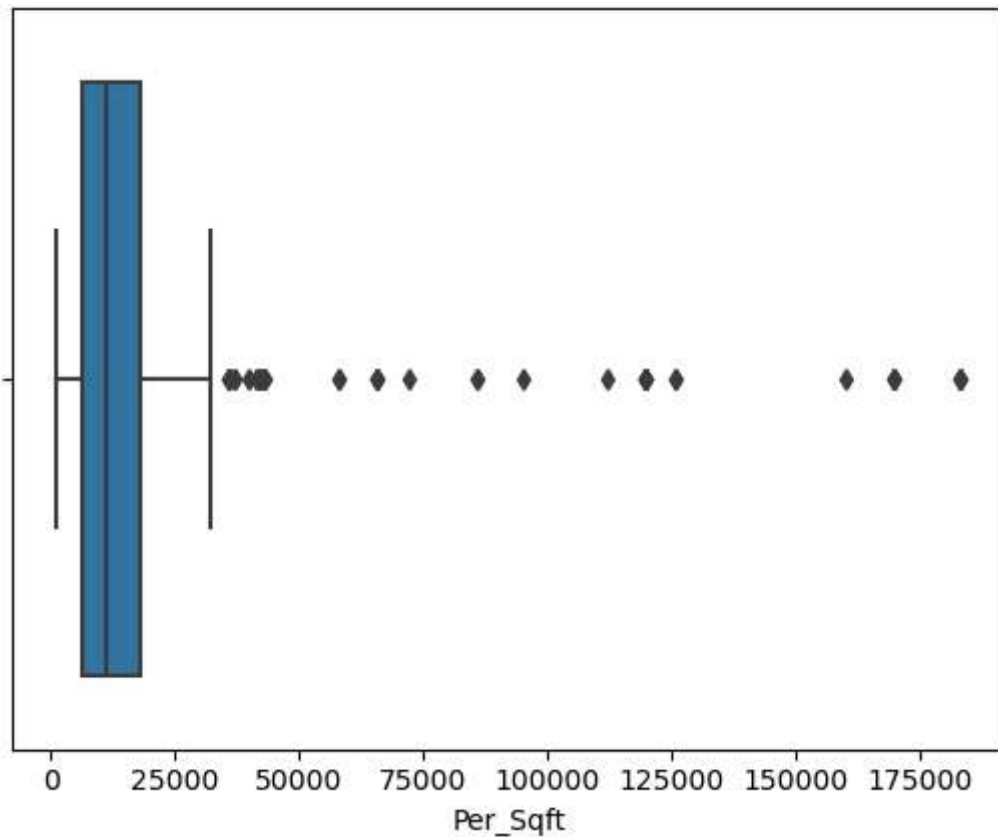
1259 rows × 11 columns

```
In [4]: sns.boxplot(df.Per_Sqft)
```

C:\Users\DELL\anaconda3\lib\site-packages\seaborn_decorators.py:36: FutureWarning: Pass the following variable as a keyword arg: x. From version 0.12, the only valid positional argument will be `data`, and passing other arguments without an explicit keyword will result in an error or misinterpretation.

warnings.warn(

Out[4]: <AxesSubplot:xlabel='Per_Sqft'>



In [5]: Q1,Q3 = df.Per_Sqft.quantile([0.25,0.75])

In [6]: Q1,Q3

Out[6]: (6364.0, 18000.0)

In [7]: df.describe()

Out[7]:

| | Area | BHK | Bathroom | Parking | Price | Per_Sqft |
|--------------|--------------|-------------|-------------|-------------|--------------|---------------|
| count | 1259.000000 | 1259.000000 | 1257.000000 | 1226.000000 | 1.259000e+03 | 1018.000000 |
| mean | 1466.452724 | 2.796664 | 2.556086 | 1.935563 | 2.130670e+07 | 15690.136542 |
| std | 1568.055040 | 0.954425 | 1.042220 | 6.279212 | 2.560115e+07 | 21134.738568 |
| min | 28.000000 | 1.000000 | 1.000000 | 1.000000 | 1.000000e+06 | 1259.000000 |
| 25% | 800.000000 | 2.000000 | 2.000000 | 1.000000 | 5.700000e+06 | 6364.000000 |
| 50% | 1200.000000 | 3.000000 | 2.000000 | 1.000000 | 1.420000e+07 | 11291.500000 |
| 75% | 1700.000000 | 3.000000 | 3.000000 | 2.000000 | 2.550000e+07 | 18000.000000 |
| max | 24300.000000 | 10.000000 | 7.000000 | 114.000000 | 2.400000e+08 | 183333.000000 |

```
In [8]: IQR = Q3-Q1  
IQR
```

```
Out[8]: 11636.0
```

```
In [9]: # Upper Limit & Lower Limit  
  
LL = Q1 - 1.5*(IQR)  
UL = Q3 + 1.5*(IQR)
```

```
In [10]: LL,UL
```

```
Out[10]: (-11090.0, 35454.0)
```

```
In [11]: df1 = df[df['Per_Sqft']>UL]
```

```
In [12]: df1
```

Out[12]:

| | Area | BHK | Bathroom | Furnishing | Locality | Parking | Price | Status | Tra |
|------------|-----------|-----|----------|----------------|---------------------------------------------------|---------|-----------|---------------|------|
| 104 | 2700.0000 | 4 | 4.0 | Semi-Furnished | Lajpat Nagar 3 | 2.0 | 55000000 | Ready_to_move | |
| 105 | 1400.0000 | 3 | 3.0 | Unfurnished | Lajpat Nagar 3 | 1.0 | 24500000 | Ready_to_move | |
| 106 | 1800.0000 | 3 | 3.0 | Unfurnished | Lajpat Nagar 3 | 1.0 | 24500000 | Ready_to_move | |
| 107 | 1400.0000 | 3 | 3.0 | Semi-Furnished | Lajpat Nagar 3 | 1.0 | 32500000 | Ready_to_move | New_ |
| 152 | 450.0000 | 2 | 1.0 | Unfurnished | Budh Vihar super area 50 sqyrd status Ready to... | 1.0 | 3600000 | Ready_to_move | |
| 153 | 100.0000 | 3 | 2.0 | Furnished | Budh Vihar Phase 1 | 1.0 | 4300000 | Ready_to_move | New_ |
| 157 | 75.0000 | 2 | 2.0 | Semi-Furnished | Budh Vihar | 1.0 | 3000000 | Ready_to_move | |
| 240 | 4500.0000 | 4 | 4.0 | Semi-Furnished | New Friends Colony | 2.0 | 60000000 | Ready_to_move | New_ |
| 241 | 1800.0000 | 4 | 4.0 | Semi-Furnished | New Friends Colony | 2.0 | 65000000 | Ready_to_move | New_ |
| 242 | 6000.0000 | 5 | 5.0 | Semi-Furnished | Maharani Bagh, New Friends Colony | 9.0 | 220000000 | Ready_to_move | New_ |
| 243 | 4300.0000 | 4 | 4.0 | Unfurnished | New Friends Colony carpet area 4300 sqft statu... | 2.0 | 60000000 | Ready_to_move | |
| 244 | 1700.0000 | 3 | 3.0 | Semi-Furnished | Friends Colony East, New Friends Colony | 2.0 | 38500000 | Ready_to_move | New_ |
| 245 | 2500.0000 | 3 | 3.0 | Semi-Furnished | Maharani Bagh, New Friends Colony | 2.0 | 50000000 | Ready_to_move | |
| 246 | 4500.0000 | 4 | 4.0 | Semi-Furnished | New Friends Colony | 2.0 | 75000000 | Ready_to_move | New_ |
| 247 | 2450.0000 | 4 | 4.0 | Furnished | Friends Colony West, New Friends Colony | 2.0 | 70000000 | Ready_to_move | New_ |
| 281 | 4500.0000 | 4 | 4.0 | Semi-Furnished | Kailash Colony, Greater Kailash | 2.0 | 47500000 | Ready_to_move | |
| 327 | 495.1394 | 1 | 1.0 | Furnished | Shahdara | 1.0 | 1900000 | Ready_to_move | |

| | Area | BHK | Bathroom | Furnishing | Locality | Parking | Price | Status | Tra |
|-------------|-----------|-----|----------|----------------|----------------------------------|---------|----------|---------------|------|
| 328 | 1053.0000 | 3 | 2.0 | Furnished | Naveen Shahdara, Shahdara | 4.0 | 7000000 | Ready_to_move | |
| 334 | 376.7365 | 1 | 1.0 | Semi-Furnished | Yamuna Vihar, Shahdara | 1.0 | 3000000 | Ready_to_move | New_ |
| 351 | 630.0000 | 3 | 2.0 | Furnished | Yamuna Vihar, Shahdara | 1.0 | 22500000 | Ready_to_move | |
| 352 | 324.0000 | 6 | 3.0 | Furnished | Yamuna Vihar, Shahdara | 1.0 | 8700000 | Ready_to_move | |
| 353 | 720.0000 | 6 | 5.0 | Furnished | Yamuna Vihar, Shahdara | 1.0 | 22000000 | Ready_to_move | |
| 354 | 675.0000 | 4 | 2.0 | Furnished | Yamuna Vihar, Shahdara | 2.0 | 18500000 | Ready_to_move | |
| 384 | 312.0000 | 4 | 4.0 | Furnished | Bank Enclave, Laxmi Nagar | 1.0 | 35000000 | Ready_to_move | |
| 430 | 100.0000 | 3 | 2.0 | Semi-Furnished | Patel Nagar East, Patel Nagar | 2.0 | 16000000 | Ready_to_move | |
| 440 | 140.0000 | 3 | 2.0 | Unfurnished | Punjabi Basti, Patel Nagar | 1.0 | 12000000 | Ready_to_move | New_ |
| 509 | 450.0000 | 2 | 2.0 | NaN | Gandhi Nagar, Shahdara | NaN | 2900000 | Ready_to_move | |
| 510 | 540.0000 | 5 | 2.0 | NaN | Gandhi Nagar, Shahdara | NaN | 17000000 | Ready_to_move | |
| 864 | 810.0000 | 3 | 2.0 | Furnished | Mahavir Enclave | 1.0 | 3800000 | Ready_to_move | |
| 865 | 720.0000 | 3 | 2.0 | Semi-Furnished | Mahavir Enclave Part 1 | 1.0 | 4500000 | Ready_to_move | |
| 866 | 360.0000 | 2 | 1.0 | Semi-Furnished | Vijay Enclave, Mahavir Enclave | 1.0 | 2200000 | Ready_to_move | New_ |
| 867 | 820.0000 | 3 | 2.0 | Semi-Furnished | Mahavir Enclave | 1.0 | 5200000 | Ready_to_move | |
| 868 | 459.0000 | 2 | 2.0 | Semi-Furnished | Mahavir Enclave Part 3 | 1.0 | 2200000 | Ready_to_move | |
| 1037 | 1143.0000 | 2 | 2.0 | Unfurnished | DDA MIG Flats Prasad Nagar Phase | 1.0 | 16000000 | Ready_to_move | |

| | Area | BHK | Bathroom | Furnishing | Locality | Parking | Price | Status | Tra |
|-------------|-----------|-----|----------|----------------|---------------------------------------------------|---------|-----------|---------------|------|
| | | | | | 2, Prasad Nag... | | | | |
| 1038 | 345.0000 | 1 | 1.0 | Semi-Furnished | Karol Bagh | 1.0 | 5500000 | Ready_to_move | |
| 1100 | 630.0000 | 2 | 2.0 | Semi-Furnished | Apna Apartments, Savitri Nagar Village, Sheikh... | 1.0 | 4600000 | Ready_to_move | |
| 1101 | 1250.0000 | 2 | 1.0 | Semi-Furnished | Sheikh Sarai Phase 1 | 2.0 | 17500000 | Ready_to_move | |
| 1102 | 1800.0000 | 4 | 3.0 | Furnished | Panchsheel Vihar, Sheikh Sarai | 2.0 | 5500000 | Ready_to_move | New_ |
| 1103 | 1500.0000 | 3 | 3.0 | Semi-Furnished | Sheikh Sarai Phase 1 | 2.0 | 22500000 | Ready_to_move | |
| 1209 | 4500.0000 | 4 | 5.0 | Semi-Furnished | Hauz Khas Enclave, Hauz Khas | 2.0 | 85000000 | Ready_to_move | New_ |
| 1210 | 6500.0000 | 4 | 5.0 | Unfurnished | Mayfair garden, Hauz Khas | 3.0 | 190000000 | Ready_to_move | New_ |
| 1211 | 4350.0000 | 4 | 6.0 | Semi-Furnished | Orchid Metropolis, Hauz Khas | 2.0 | 135000000 | Ready_to_move | New_ |
| 1212 | 1750.0000 | 3 | 3.0 | Unfurnished | Hauz Khas | 2.0 | 35000000 | Ready_to_move | |
| 1227 | 2700.0000 | 4 | 4.0 | Semi-Furnished | Hauz Khas Enclave, Hauz Khas | 2.0 | 100000000 | Ready_to_move | New_ |
| 1228 | 1450.0000 | 3 | 3.0 | Semi-Furnished | Safdarjung Development Area, Hauz Khas | 1.0 | 45000000 | Ready_to_move | New_ |

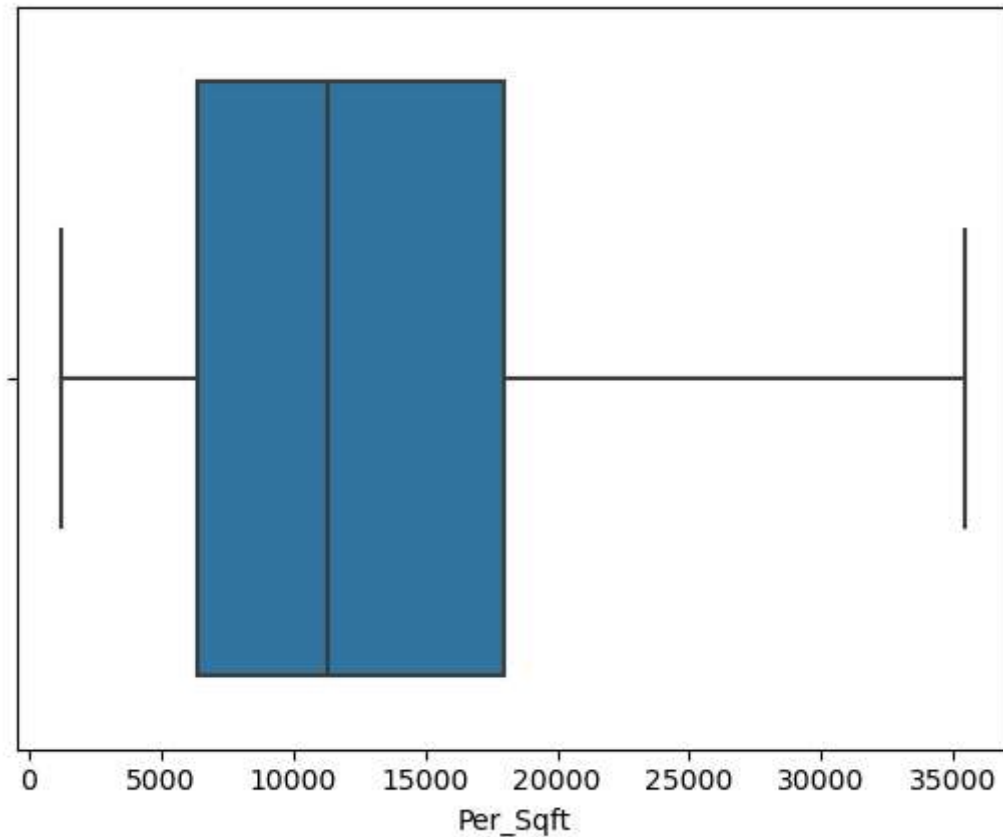
```
In [13]: df.Per_Sqft = np.where(df['Per_Sqft']>UL,UL,df['Per_Sqft'])
```

```
In [14]: sns.boxplot(df.Per_Sqft)
```

C:\Users\DELL\anaconda3\lib\site-packages\seaborn_decorators.py:36: FutureWarning: Pass the following variable as a keyword arg: x. From version 0.12, the only valid positional argument will be `data`, and passing other arguments without an explicit keyword will result in an error or misinterpretation.

```
warnings.warn(
```

```
Out[14]: <AxesSubplot:xlabel='Per_Sqft'>
```



In [16]: `df.describe()`

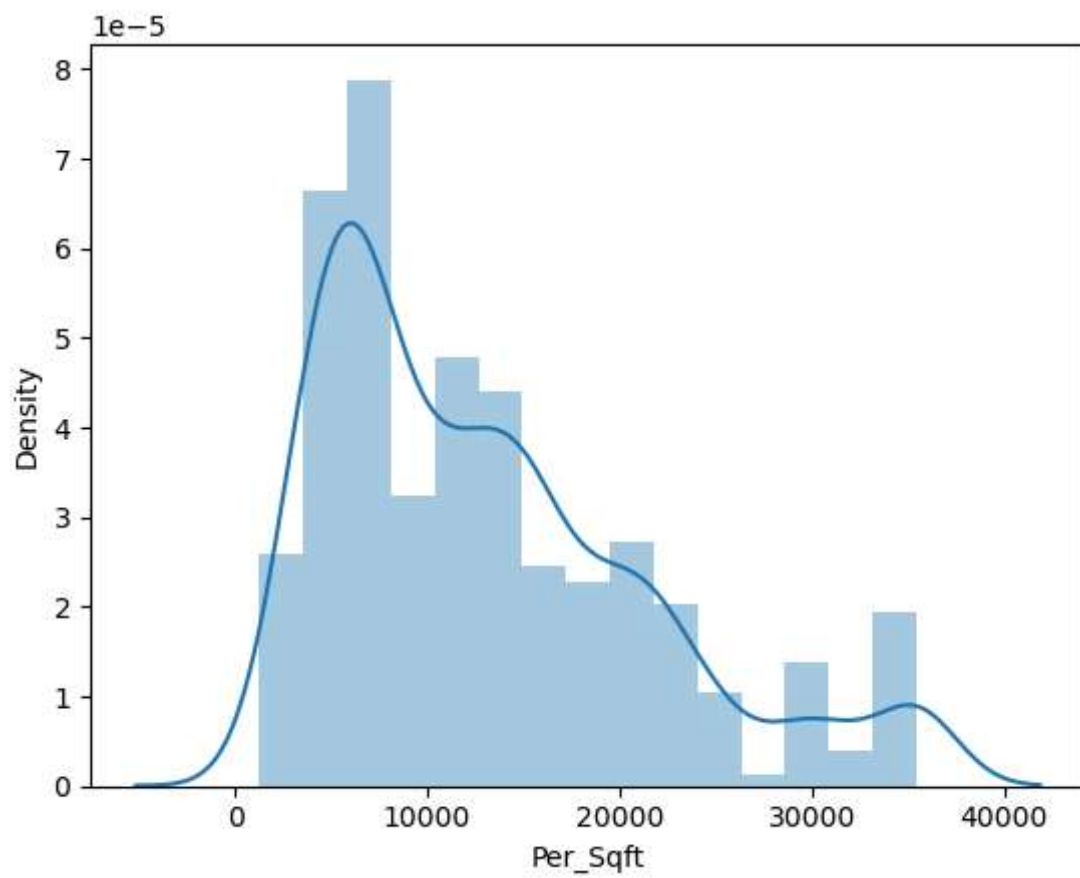
Out[16]:

| | Area | BHK | Bathroom | Parking | Price | Per_Sqft |
|--------------|--------------|-------------|-------------|-------------|--------------|--------------|
| count | 1259.000000 | 1259.000000 | 1257.000000 | 1226.000000 | 1.259000e+03 | 1018.000000 |
| mean | 1466.452724 | 2.796664 | 2.556086 | 1.935563 | 2.130670e+07 | 13122.457760 |
| std | 1568.055040 | 0.954425 | 1.042220 | 6.279212 | 2.560115e+07 | 8551.645196 |
| min | 28.000000 | 1.000000 | 1.000000 | 1.000000 | 1.000000e+06 | 1259.000000 |
| 25% | 800.000000 | 2.000000 | 2.000000 | 1.000000 | 5.700000e+06 | 6364.000000 |
| 50% | 1200.000000 | 3.000000 | 2.000000 | 1.000000 | 1.420000e+07 | 11291.500000 |
| 75% | 1700.000000 | 3.000000 | 3.000000 | 2.000000 | 2.550000e+07 | 18000.000000 |
| max | 24300.000000 | 10.000000 | 7.000000 | 114.000000 | 2.400000e+08 | 35454.000000 |

In [15]: `sns.distplot(df.Per_Sqft)`

C:\Users\DELL\anaconda3\lib\site-packages\seaborn\distributions.py:2619: FutureWarning: `distplot` is a deprecated function and will be removed in a future version. Please adapt your code to use either `displot` (a figure-level function with similar flexibility) or `histplot` (an axes-level function for histograms).
 warnings.warn(msg, FutureWarning)

Out[15]: `<AxesSubplot:xlabel='Per_Sqft', ylabel='Density'>`



In []:

In []: