

```
import pandas as pd
import numpy as np
import sklearn as sk
df=pd.read_csv("/home/student/Downloads/bengaluru_house_prices.csv")
df.head()
```

	area_type	availability	location
size \			
0 Super built-up	Area	19-Dec	Electronic City Phase II
2 BHK			
1 Plot	Area	Ready To Move	Chikka Tirupathi
4 Bedroom			
2 Built-up	Area	Ready To Move	Uttarahalli
3 BHK			
3 Super built-up	Area	Ready To Move	Lingadheeranahalli
3 BHK			
4 Super built-up	Area	Ready To Move	Kothanur
2 BHK			

	society	total_sqft	bath	balcony	price
0 Coomee		1056	2.0	1.0	39.07
1 Theanmp		2600	5.0	3.0	120.00
2 NaN		1440	2.0	3.0	62.00
3 Soiewre		1521	3.0	1.0	95.00
4 NaN		1200	2.0	1.0	51.00

```
df.shape
```

```
(13320, 9)
```

```
df.isnull()
```

	area_type	availability	location	size	society	total_sqft
bath \						
0	False	False	False	False	False	False
False						
1	False	False	False	False	False	False
False						
2	False	False	False	False	True	False
False						
3	False	False	False	False	False	False
False						
4	False	False	False	False	True	False
False						
...
...						
13315	False	False	False	False	False	False
False						
13316	False	False	False	False	True	False
False						

13317	False	False	False	False	False	False
False						
13318	False	False	False	False	False	False
False						
13319	False	False	False	False	True	False
False						

	balcony	price
0	False	False
1	False	False
2	False	False
3	False	False
4	False	False
...
13315	False	False
13316	True	False
13317	False	False
13318	False	False
13319	False	False

[13320 rows x 9 columns]

df.isnull().sum()

area_type	0
availability	0
location	1
size	16
society	5502
total_sqft	0
bath	73
balcony	609
price	0

dtype: int64

df.isnull().sum().sum()

6201

#filling null values

df1=df.fillna(value=0)
df1

	area_type	availability
location \		
0 Super built-up	Area	19-Dec Electronic City Phase II
1 Plot	Area	Ready To Move Chikka Tirupathi
2 Built-up	Area	Ready To Move Uttarahalli

3	Super built-up	Area	Ready To Move	Lingadheeranahalli
4	Super built-up	Area	Ready To Move	Kothanur
...
13315	Built-up	Area	Ready To Move	Whitefield
13316	Super built-up	Area	Ready To Move	Richards Town
13317	Built-up	Area	Ready To Move	Raja Rajeshwari Nagar
13318	Super built-up	Area	18-Jun	Padmanabhanagar
13319	Super built-up	Area	Ready To Move	Doddathoguru

	size	society	total_sqft	bath	balcony	price
0	2 BHK	Coomee	1056	2.0	1.0	39.07
1	4 Bedroom	Theanmp	2600	5.0	3.0	120.00
2	3 BHK	0	1440	2.0	3.0	62.00
3	3 BHK	Soiewre	1521	3.0	1.0	95.00
4	2 BHK	0	1200	2.0	1.0	51.00
...
13315	5 Bedroom	ArsiaEx	3453	4.0	0.0	231.00
13316	4 BHK	0	3600	5.0	0.0	400.00
13317	2 BHK	Mahla T	1141	2.0	1.0	60.00
13318	4 BHK	SollyCl	4689	4.0	1.0	488.00
13319	1 BHK	0	550	1.0	1.0	17.00

[13320 rows x 9 columns]

```
df1.isnull().sum().sum()
```

0

```
df2=df.fillna(method='pad')
```

```
df2
```

/tmp/ipykernel_5722/2392532074.py:1: FutureWarning: DataFrame.fillna with 'method' is deprecated and will raise in a future version. Use obj.ffill() or obj.bfill() instead.

```
df2=df.fillna(method='pad')
```

	area_type	availability
location \		
0	Super built-up Area	19-Dec Electronic City Phase II
1	Plot Area	Ready To Move Chikka Tirupathi
2	Built-up Area	Ready To Move Uttarahalli

3	Super built-up	Area	Ready To Move	Lingadheeranahalli
4	Super built-up	Area	Ready To Move	Kothanur
...
13315	Built-up	Area	Ready To Move	Whitefield
13316	Super built-up	Area	Ready To Move	Richards Town
13317	Built-up	Area	Ready To Move	Raja Rajeshwari Nagar
13318	Super built-up	Area	18-Jun	Padmanabhanagar
13319	Super built-up	Area	Ready To Move	Doddathoguru

	size	society	total_sqft	bath	balcony	price
0	2 BHK	Coomee	1056	2.0	1.0	39.07
1	4 Bedroom	Theanmp	2600	5.0	3.0	120.00
2	3 BHK	Theanmp	1440	2.0	3.0	62.00
3	3 BHK	Soiewre	1521	3.0	1.0	95.00
4	2 BHK	Soiewre	1200	2.0	1.0	51.00
...
13315	5 Bedroom	ArsiaEx	3453	4.0	0.0	231.00
13316	4 BHK	ArsiaEx	3600	5.0	0.0	400.00
13317	2 BHK	Mahla T	1141	2.0	1.0	60.00
13318	4 BHK	SollyCl	4689	4.0	1.0	488.00
13319	1 BHK	SollyCl	550	1.0	1.0	17.00

[13320 rows x 9 columns]

```
df2.isnull().sum().sum()
```

0

```
df3=df.fillna(method='bfill')
```

```
df3
```

/tmp/ipykernel_5722/2271066961.py:1: FutureWarning: DataFrame.fillna with 'method' is deprecated and will raise in a future version. Use obj.ffill() or obj.bfill() instead.

```
df3=df.fillna(method='bfill')
```

	area_type	availability
location \		
0	Super built-up Area	19-Dec Electronic City Phase II
1	Plot Area	Ready To Move Chikka Tirupathi
2	Built-up Area	Ready To Move Uttarahalli

3	Super built-up	Area	Ready To Move	Lingadheeranahalli
4	Super built-up	Area	Ready To Move	Kothanur
...	
13315	Built-up	Area	Ready To Move	Whitefield
13316	Super built-up	Area	Ready To Move	Richards Town
13317	Built-up	Area	Ready To Move	Raja Rajeshwari Nagar
13318	Super built-up	Area	18-Jun	Padmanabhanagar
13319	Super built-up	Area	Ready To Move	Doddathoguru

	size	society	total_sqft	bath	balcony	price
0	2 BHK	Coomee	1056	2.0	1.0	39.07
1	4 Bedroom	Theanmp	2600	5.0	3.0	120.00
2	3 BHK	Soiewre	1440	2.0	3.0	62.00
3	3 BHK	Soiewre	1521	3.0	1.0	95.00
4	2 BHK	DuenaTa	1200	2.0	1.0	51.00
...
13315	5 Bedroom	ArsiaEx	3453	4.0	0.0	231.00
13316	4 BHK	Mahla T	3600	5.0	1.0	400.00
13317	2 BHK	Mahla T	1141	2.0	1.0	60.00
13318	4 BHK	SollyCl	4689	4.0	1.0	488.00
13319	1 BHK	NaN	550	1.0	1.0	17.00

[13320 rows x 9 columns]

```
df3.isnull().sum()
```

```
area_type      0
availability    0
location        0
size            0
society         1
total_sqft      0
bath            0
balcony         0
price           0
dtype: int64
```

```
df4=df.fillna(method='pad',axis=1)
df4
```

/tmp/ipykernel_5722/2391954019.py:1: FutureWarning: DataFrame.fillna with 'method' is deprecated and will raise in a future version. Use

```
obj.ffill() or obj.bfill() instead.
df4=df.fillna(method='pad',axis=1)
```

	location \	area_type	availability	
0	Super built-up	Area	19-Dec	Electronic City Phase II
1	Plot	Area	Ready To Move	Chikka Tirupathi
2	Built-up	Area	Ready To Move	Uttarahalli
3	Super built-up	Area	Ready To Move	Lingadheeranahalli
4	Super built-up	Area	Ready To Move	Kothanur
...	
13315	Built-up	Area	Ready To Move	Whitefield
13316	Super built-up	Area	Ready To Move	Richards Town
13317	Built-up	Area	Ready To Move	Raja Rajeshwari Nagar
13318	Super built-up	Area	18-Jun	Padmanabhanagar
13319	Super built-up	Area	Ready To Move	Doddathoguru

	size	society	total_sqft	bath	balcony	price
0	2 BHK	Coomee	1056	2.0	1.0	39.07
1	4 Bedroom	Theanmp	2600	5.0	3.0	120.0
2	3 BHK	3 BHK	1440	2.0	3.0	62.0
3	3 BHK	Soiewre	1521	3.0	1.0	95.0
4	2 BHK	2 BHK	1200	2.0	1.0	51.0
...
13315	5 Bedroom	ArsiaEx	3453	4.0	0.0	231.0
13316	4 BHK	4 BHK	3600	5.0	5.0	400.0
13317	2 BHK	Mahla T	1141	2.0	1.0	60.0
13318	4 BHK	SollyCl	4689	4.0	1.0	488.0
13319	1 BHK	1 BHK	550	1.0	1.0	17.0

```
[13320 rows x 9 columns]
```

```
df4.isnull().sum()
```

```
area_type      0
availability    0
location        0
size            0
society         0
total_sqft     0
```

```
bath      0
balcony   0
price     0
dtype: int64
```

```
df5=df.fillna(method='bfill',axis=1)
df5
```

```
/tmp/ipykernel_5722/717312210.py:1: FutureWarning: DataFrame.fillna
with 'method' is deprecated and will raise in a future version. Use
obj.ffill() or obj.bfill() instead.
```

```
df5=df.fillna(method='bfill',axis=1)
```

		area_type	availability	
location \				
0	Super built-up	Area	19-Dec	Electronic City Phase II
1	Plot	Area	Ready To Move	Chikka Tirupathi
2	Built-up	Area	Ready To Move	Uttarahalli
3	Super built-up	Area	Ready To Move	Lingadheeranahalli
4	Super built-up	Area	Ready To Move	Kothanur
...	
13315	Built-up	Area	Ready To Move	Whitefield
13316	Super built-up	Area	Ready To Move	Richards Town
13317	Built-up	Area	Ready To Move	Raja Rajeshwari Nagar
13318	Super built-up	Area	18-Jun	Padmanabhanagar
13319	Super built-up	Area	Ready To Move	Doddathoguru

	size	society	total_sqft	bath	balcony	price
0	2 BHK	Coomee	1056	2.0	1.0	39.07
1	4 Bedroom	Theanmp	2600	5.0	3.0	120.0
2	3 BHK	1440	1440	2.0	3.0	62.0
3	3 BHK	Soiewre	1521	3.0	1.0	95.0
4	2 BHK	1200	1200	2.0	1.0	51.0
...
13315	5 Bedroom	ArsiaEx	3453	4.0	0.0	231.0
13316	4 BHK	3600	3600	5.0	400.0	400.0
13317	2 BHK	Mahla T	1141	2.0	1.0	60.0
13318	4 BHK	SollyCl	4689	4.0	1.0	488.0
13319	1 BHK	550	550	1.0	1.0	17.0

```
[13320 rows x 9 columns]
```

```
df6=df.fillna({'society':'abcd','balcony':'defg'})
df6
```

		area_type	availability	
location \				
0	Super built-up	Area	19-Dec	Electronic City Phase II
1	Plot	Area	Ready To Move	Chikka Tirupathi
2	Built-up	Area	Ready To Move	Uttarahalli
3	Super built-up	Area	Ready To Move	Lingadheeranahalli
4	Super built-up	Area	Ready To Move	Kothanur
...	
13315	Built-up	Area	Ready To Move	Whitefield
13316	Super built-up	Area	Ready To Move	Richards Town
13317	Built-up	Area	Ready To Move	Raja Rajeshwari Nagar
13318	Super built-up	Area	18-Jun	Padmanabhanagar
13319	Super built-up	Area	Ready To Move	Doddathoguru

	size	society	total_sqft	bath	balcony	price
0	2 BHK	Coomee	1056	2.0	1.0	39.07
1	4 Bedroom	Theanmp	2600	5.0	3.0	120.00
2	3 BHK	abcd	1440	2.0	3.0	62.00
3	3 BHK	Soiewre	1521	3.0	1.0	95.00
4	2 BHK	abcd	1200	2.0	1.0	51.00
...
13315	5 Bedroom	ArsiaEx	3453	4.0	0.0	231.00
13316	4 BHK	abcd	3600	5.0	defg	400.00
13317	2 BHK	Mahla T	1141	2.0	1.0	60.00
13318	4 BHK	SollyCl	4689	4.0	1.0	488.00
13319	1 BHK	abcd	550	1.0	1.0	17.00

```
[13320 rows x 9 columns]
```

```
df7=df.fillna(value=df['balcony'].mean())
df7
```

	area_type	availability
location \		

0	Super built-up	Area	19-Dec	Electronic City Phase II
1	Plot	Area	Ready To Move	Chikka Tirupathi
2	Built-up	Area	Ready To Move	Uttarahalli
3	Super built-up	Area	Ready To Move	Lingadheeranahalli
4	Super built-up	Area	Ready To Move	Kothanur
...
13315	Built-up	Area	Ready To Move	Whitefield
13316	Super built-up	Area	Ready To Move	Richards Town
13317	Built-up	Area	Ready To Move	Raja Rajeshwari Nagar
13318	Super built-up	Area	18-Jun	Padmanabhanagar
13319	Super built-up	Area	Ready To Move	Doddathoguru

	size	society	total_sqft	bath	balcony	price
0	2 BHK	Coomee	1056	2.0	1.000000	39.07
1	4 Bedroom	Theanmp	2600	5.0	3.000000	120.00
2	3 BHK	1.584376	1440	2.0	3.000000	62.00
3	3 BHK	Soiewre	1521	3.0	1.000000	95.00
4	2 BHK	1.584376	1200	2.0	1.000000	51.00
...
13315	5 Bedroom	ArsiaEx	3453	4.0	0.000000	231.00
13316	4 BHK	1.584376	3600	5.0	1.584376	400.00
13317	2 BHK	Mahla T	1141	2.0	1.000000	60.00
13318	4 BHK	SollyCl	4689	4.0	1.000000	488.00
13319	1 BHK	1.584376	550	1.0	1.000000	17.00

[13320 rows x 9 columns]

```
df8=df.fillna(value=df['balcony'].max())
df8
```

	area_type	availability
location \		
0	Super built-up Area	19-Dec Electronic City Phase II
1	Plot Area	Ready To Move Chikka Tirupathi
2	Built-up Area	Ready To Move Uttarahalli
3	Super built-up Area	Ready To Move Lingadheeranahalli

4	Super built-up	Area	Ready To Move	Kothanur
...
13315	Built-up	Area	Ready To Move	Whitefield
13316	Super built-up	Area	Ready To Move	Richards Town
13317	Built-up	Area	Ready To Move	Raja Rajeshwari Nagar
13318	Super built-up	Area	18-Jun	Padmanabhanagar
13319	Super built-up	Area	Ready To Move	Doddathoguru

	size	society	total_sqft	bath	balcony	price
0	2 BHK	Coomee	1056	2.0	1.0	39.07
1	4 Bedroom	Theanmp	2600	5.0	3.0	120.00
2	3 BHK	3.0	1440	2.0	3.0	62.00
3	3 BHK	Soiewre	1521	3.0	1.0	95.00
4	2 BHK	3.0	1200	2.0	1.0	51.00
...
13315	5 Bedroom	ArsiaEx	3453	4.0	0.0	231.00
13316	4 BHK	3.0	3600	5.0	3.0	400.00
13317	2 BHK	Mahla T	1141	2.0	1.0	60.00
13318	4 BHK	SollyCl	4689	4.0	1.0	488.00
13319	1 BHK	3.0	550	1.0	1.0	17.00

[13320 rows x 9 columns]

```
df9=df.fillna(value=df['balcony'].min())
df9
```

	area_type	availability	
location \			
0	Super built-up Area	19-Dec	Electronic City Phase II
1	Plot Area	Ready To Move	Chikka Tirupathi
2	Built-up Area	Ready To Move	Uttarahalli
3	Super built-up Area	Ready To Move	Lingadheeranahalli
4	Super built-up Area	Ready To Move	Kothanur
...
13315	Built-up Area	Ready To Move	Whitefield
13316	Super built-up Area	Ready To Move	Richards Town

13317	Built-up	Area	Ready To Move	Raja Rajeshwari Nagar
13318	Super built-up	Area	18-Jun	Padmanabhanagar
13319	Super built-up	Area	Ready To Move	Doddathoguru

	size	society	total_sqft	bath	balcony	price
0	2 BHK	Coomee	1056	2.0	1.0	39.07
1	4 Bedroom	Theanmp	2600	5.0	3.0	120.00
2	3 BHK	0.0	1440	2.0	3.0	62.00
3	3 BHK	Soiewre	1521	3.0	1.0	95.00
4	2 BHK	0.0	1200	2.0	1.0	51.00
...
13315	5 Bedroom	ArsiaEx	3453	4.0	0.0	231.00
13316	4 BHK	0.0	3600	5.0	0.0	400.00
13317	2 BHK	Mahla T	1141	2.0	1.0	60.00
13318	4 BHK	SollyCl	4689	4.0	1.0	488.00
13319	1 BHK	0.0	550	1.0	1.0	17.00

[13320 rows x 9 columns]

```
df10=df.dropna()
df10
```

	area_type	availability
location \		
0	Super built-up Area	19-Dec Electronic City Phase II
1	Plot Area	Ready To Move Chikka Tirupathi
3	Super built-up Area	Ready To Move Lingadheeranahalli
5	Super built-up Area	Ready To Move Whitefield
11	Plot Area	Ready To Move Whitefield
...
13313	Super built-up Area	Ready To Move Uttarahalli
13314	Super built-up Area	Ready To Move Green Glen Layout
13315	Built-up Area	Ready To Move Whitefield
13317	Built-up Area	Ready To Move Raja Rajeshwari Nagar
13318	Super built-up Area	18-Jun Padmanabhanagar

size	society	total_sqft	bath	balcony	price
------	---------	------------	------	---------	-------

0	2 BHK	Coomee	1056	2.0	1.0	39.07
1	4 Bedroom	Theanmp	2600	5.0	3.0	120.00
3	3 BHK	Soiewre	1521	3.0	1.0	95.00
5	2 BHK	DuenaTa	1170	2.0	1.0	38.00
11	4 Bedroom	Prerry M	2785	5.0	3.0	295.00
...
13313	3 BHK	Aklia R	1345	2.0	1.0	57.00
13314	3 BHK	SoosePr	1715	3.0	3.0	112.00
13315	5 Bedroom	ArsiaEx	3453	4.0	0.0	231.00
13317	2 BHK	Mahla T	1141	2.0	1.0	60.00
13318	4 BHK	SollyCl	4689	4.0	1.0	488.00

[7496 rows x 9 columns]

```
df11=df.dropna(how='all')
df11
```

		area_type	availability	
location \				
0	Super built-up	Area	19-Dec	Electronic City Phase II
1	Plot	Area	Ready To Move	Chikka Tirupathi
2	Built-up	Area	Ready To Move	Uttarahalli
3	Super built-up	Area	Ready To Move	Lingadheeranahalli
4	Super built-up	Area	Ready To Move	Kothanur
...	
13315	Built-up	Area	Ready To Move	Whitefield
13316	Super built-up	Area	Ready To Move	Richards Town
13317	Built-up	Area	Ready To Move	Raja Rajeshwari Nagar
13318	Super built-up	Area	18-Jun	Padmanabhanagar
13319	Super built-up	Area	Ready To Move	Doddathoguru

	size	society	total_sqft	bath	balcony	price
0	2 BHK	Coomee	1056	2.0	1.0	39.07
1	4 Bedroom	Theanmp	2600	5.0	3.0	120.00
2	3 BHK	NaN	1440	2.0	3.0	62.00
3	3 BHK	Soiewre	1521	3.0	1.0	95.00
4	2 BHK	NaN	1200	2.0	1.0	51.00
...
13315	5 Bedroom	ArsiaEx	3453	4.0	0.0	231.00
13316	4 BHK	NaN	3600	5.0	NaN	400.00

13317	2 BHK	Mahla T	1141	2.0	1.0	60.00
13318	4 BHK	SollyCl	4689	4.0	1.0	488.00
13319	1 BHK	NaN	550	1.0	1.0	17.00

[13320 rows x 9 columns]

```
df12=df.dropna(how='any')
df12
```

		area_type	availability	
location \				
0	Super built-up	Area	19-Dec	Electronic City Phase II
1		Plot Area	Ready To Move	Chikka Tirupathi
3	Super built-up	Area	Ready To Move	Lingadheeranahalli
5	Super built-up	Area	Ready To Move	Whitefield
11		Plot Area	Ready To Move	Whitefield
...	
13313	Super built-up	Area	Ready To Move	Uttarahalli
13314	Super built-up	Area	Ready To Move	Green Glen Layout
13315	Built-up	Area	Ready To Move	Whitefield
13317	Built-up	Area	Ready To Move	Raja Rajeshwari Nagar
13318	Super built-up	Area	18-Jun	Padmanabhanagar

	size	society	total_sqft	bath	balcony	price
0	2 BHK	Coomee	1056	2.0	1.0	39.07
1	4 Bedroom	Theanmp	2600	5.0	3.0	120.00
3	3 BHK	Soiewre	1521	3.0	1.0	95.00
5	2 BHK	DuenaTa	1170	2.0	1.0	38.00
11	4 Bedroom	Prrry M	2785	5.0	3.0	295.00
...
13313	3 BHK	Aklia R	1345	2.0	1.0	57.00
13314	3 BHK	SoosePr	1715	3.0	3.0	112.00
13315	5 Bedroom	ArsiaEx	3453	4.0	0.0	231.00
13317	2 BHK	Mahla T	1141	2.0	1.0	60.00
13318	4 BHK	SollyCl	4689	4.0	1.0	488.00

[7496 rows x 9 columns]

```
df10.shape
```

```
(7496, 9)
```

```
df11.shape
```

```
(13320, 9)
```

```
df12.shape
```

```
(7496, 9)
```

```
df13=df.replace(to_replace=np.nan,value=875465)  
df13
```

		area_type	availability	
location \				
0	Super built-up	Area	19-Dec	Electronic City Phase II
1	Plot	Area	Ready To Move	Chikka Tirupathi
2	Built-up	Area	Ready To Move	Uttarahalli
3	Super built-up	Area	Ready To Move	Lingadheeranahalli
4	Super built-up	Area	Ready To Move	Kothanur
...	
13315	Built-up	Area	Ready To Move	Whitefield
13316	Super built-up	Area	Ready To Move	Richards Town
13317	Built-up	Area	Ready To Move	Raja Rajeshwari Nagar
13318	Super built-up	Area	18-Jun	Padmanabhanagar
13319	Super built-up	Area	Ready To Move	Doddathoguru

	size	society	total_sqft	bath	balcony	price
0	2 BHK	Coomee	1056	2.0	1.0	39.07
1	4 Bedroom	Theanmp	2600	5.0	3.0	120.00
2	3 BHK	875465	1440	2.0	3.0	62.00
3	3 BHK	Soiewre	1521	3.0	1.0	95.00
4	2 BHK	875465	1200	2.0	1.0	51.00
...
13315	5 Bedroom	ArsiaEx	3453	4.0	0.0	231.00
13316	4 BHK	875465	3600	5.0	875465.0	400.00
13317	2 BHK	Mahla T	1141	2.0	1.0	60.00
13318	4 BHK	SollyCl	4689	4.0	1.0	488.00
13319	1 BHK	875465	550	1.0	1.0	17.00

```
[13320 rows x 9 columns]
```

```
df['code']=pd.factorize(df.society)[0]
df.head()
```

		area_type	availability	location
size \				
0	Super built-up	Area	19-Dec	Electronic City Phase II
2	BHK			
1		Plot	Area	Ready To Move
	Bedroom			Chikka Tirupathi
4				
2		Built-up	Area	Ready To Move
				Uttarahalli
3	BHK			
3	Super built-up	Area	Ready To Move	Lingadheeranahalli
3	BHK			
4	Super built-up	Area	Ready To Move	Kothanur
2	BHK			

	society	total_sqft	bath	balcony	price	code
0	Coomee	1056	2.0	1.0	39.07	0
1	Theanmp	2600	5.0	3.0	120.00	1
2	NaN	1440	2.0	3.0	62.00	-1
3	Soiewre	1521	3.0	1.0	95.00	2
4	NaN	1200	2.0	1.0	51.00	-1

```
from sklearn.preprocessing import LabelEncoder
le=LabelEncoder()
df['code_le']=le.fit_transform(df.society)
df.head()
```

		area_type	availability	location
size \				
0	Super built-up	Area	19-Dec	Electronic City Phase II
2	BHK			
1		Plot	Area	Ready To Move
	Bedroom			Chikka Tirupathi
4				
2		Built-up	Area	Ready To Move
				Uttarahalli
3	BHK			
3	Super built-up	Area	Ready To Move	Lingadheeranahalli
3	BHK			
4	Super built-up	Area	Ready To Move	Kothanur
2	BHK			

	society	total_sqft	bath	balcony	price	code_le
0	Coomee	1056	2.0	1.0	39.07	464
1	Theanmp	2600	5.0	3.0	120.00	2439
2	NaN	1440	2.0	3.0	62.00	2688
3	Soiewre	1521	3.0	1.0	95.00	2186
4	NaN	1200	2.0	1.0	51.00	2688

```
df.tail()
```

		area_type	availability	location		
size \						
13315		Built-up Area	Ready To Move	Whitefield	5	
Bedroom						
13316	Super	built-up Area	Ready To Move	Richards Town		
4 BHK						
13317		Built-up Area	Ready To Move	Raja Rajeshwari Nagar		
2 BHK						
13318	Super	built-up Area	18-Jun	Padmanabhanagar		
4 BHK						
13319	Super	built-up Area	Ready To Move	Doddathoguru		
1 BHK						
	society	total_sqft	bath	balcony	price	code_le
13315	ArsiaEx	3453	4.0	0.0	231.0	209
13316	NaN	3600	5.0	NaN	400.0	2688
13317	Mahla T	1141	2.0	1.0	60.0	1216
13318	SollyCl	4689	4.0	1.0	488.0	2205
13319	NaN	550	1.0	1.0	17.0	2688