

1. Data Loading

```
In [2]: import pandas as pd
```

```
In [3]: df=pd.read_csv("data.csv")
```

```
In [4]: df.head(5)
```

```
Out[4]:
```

	date	price	bedrooms	bathrooms	sqft_living	sqft_lot	floors	waterfront	view
0	5/2/2014 0:00	313000.0	3	1.50	1340.0	7912.0	1.5	0.0	0
1	5/2/2014 0:00	2384000.0	5	2.50	3650.0	9050.0	2.0	0.0	4
2	5/2/2014 0:00	342000.0	3	2.00	1930.0	11947.0	1.0	0.0	0
3	5/2/2014 0:00	420000.0	3	2.25	2000.0	8030.0	1.0	0.0	0
4	5/2/2014 0:00	550000.0	4	NaN	NaN	NaN	NaN	NaN	0



```
In [10]: df.tail()
```

Out[10]:

	date	price	bedrooms	bathrooms	sqft_living	sqft_lot	floors	waterfro
4595	7/9/2014 0:00	308166.6667	3	1.75	1510.0	6360.0	1.0	(
4596	7/9/2014 0:00	534333.3333	3	2.50	1460.0	7573.0	2.0	(
4597	7/9/2014 0:00	416904.1667	3	2.50	3010.0	7014.0	2.0	(
4598	7/10/2014 0:00	203400.0000	4	2.00	2090.0	6630.0	1.0	(
4599	7/10/2014 0:00	220600.0000	3	2.50	1490.0	8102.0	2.0	(

1. Data Exploration

In [5]: `df.info()`

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 4600 entries, 0 to 4599
Data columns (total 18 columns):
#   Column                Non-Null Count  Dtype
---  -
0   date                  4600 non-null   object
1   price                 4600 non-null   float64
2   bedrooms              4600 non-null   int64
3   bathrooms             4553 non-null   float64
4   sqft_living           4553 non-null   float64
5   sqft_lot              4553 non-null   float64
6   floors                4553 non-null   float64
7   waterfront            4553 non-null   float64
8   view                  4552 non-null   float64
9   condition             4552 non-null   float64
10  sqft_above            4552 non-null   float64
11  sqft_basement         4552 non-null   float64
12  yr_built              4552 non-null   float64
13  yr_renovated          4552 non-null   float64
14  street                4552 non-null   object
15  city                  4600 non-null   object
16  statezip              4600 non-null   object
17  country               4600 non-null   object
dtypes: float64(12), int64(1), object(5)
memory usage: 647.0+ KB
```

In [7]: `df.shape`

Out[7]: (4600, 18)

In [8]: `df.describe()`

Out[8]:

	price	bedrooms	bathrooms	sqft_living	sqft_lot	floors
count	4.600000e+03	4600.000000	4553.000000	4553.000000	4.553000e+03	4553.000000
mean	5.519630e+05	3.400870	2.161871	2140.734900	1.485242e+04	1.513068
std	5.638347e+05	0.908848	0.785562	965.330337	3.602707e+04	0.538393
min	0.000000e+00	0.000000	0.000000	370.000000	6.380000e+02	1.000000
25%	3.228750e+05	3.000000	1.750000	1460.000000	5.000000e+03	1.000000
50%	4.609435e+05	3.000000	2.250000	1980.000000	7.680000e+03	1.500000
75%	6.549625e+05	4.000000	2.500000	2620.000000	1.100000e+04	2.000000
max	2.659000e+07	9.000000	8.000000	13540.000000	1.074218e+06	3.500000



In [9]: `df.isnull().sum()`

Out[9]:

date	0
price	0
bedrooms	0
bathrooms	47
sqft_living	47
sqft_lot	47
floors	47
waterfront	47
view	48
condition	48
sqft_above	48
sqft_basement	48
yr_built	48
yr_renovated	48
street	48
city	0
statezip	0
country	0
dtype: int64	

In [11]: `df.count()`

```
Out[11]: date          4600  
         price         4600  
         bedrooms      4600  
         bathrooms     4553  
         sqft_living    4553  
         sqft_lot       4553  
         floors        4553  
         waterfront    4553  
         view          4552  
         condition     4552  
         sqft_above     4552  
         sqft_basement  4552  
         yr_built      4552  
         yr_renovated   4552  
         street        4552  
         city          4600  
         statezip      4600  
         country       4600  
         dtype: int64
```