

```
import pandas as pd
```

```
data ={'Country':['Belgium','India','Brazil'],  
       'Capital':['Brussels', 'New Delhi','Brasilia'],  
       'Population':[11190854, 569996795, 6095996655]}
```

```
df = pd.DataFrame(data,columns=['Country', 'Capital', 'Population'])
```

df

	Country	Capital	Population
0	Belgium	Brussels	11190854
1	India	New Delhi	569996795
2	Brazil	Brasilia	6095996655

```
df1=pd.read_csv("BigBasket.csv")
```

df1



	ProductName	Brand	Price	DiscountPrice	
0	Onion (Loose)	Fresho	69.75	52.0	https://www.bigbasket.com/medi
1	Onion	Fresho	174.35	130.0	https://www.bigbasket.com/medi
2	Onion (Loose)	Fresho	34.87	26.0	https://www.bigbasket.com/medi
3	Onion	Fresho	69.74	52.0	https://www.bigbasket.com/medi
4	Onion (Loose)	Fresho	174.37	129.0	https://www.bigbasket.com/medi
...	
8203	Foil Alphabet Balloon - Letter V, Party Decor,...	Bvishal	49.00	25.0	https://www.bigbasket.com/medi
8204	Decoration Balls - Used For Parties, Unique De...	Bvishal	399.00	249.0	https://www.bigbasket.com/medi
8205	Foundation Blending Brush - 230	PAC	465.00	232.5	https://www.bigbasket.com/medi
8206	One Week Immunity Booster	The Healthy Company	799.00	799.0	https://www.bigbasket.com/medi
8207	Blush & Glow - Green Apple Apricot Gel Scrub, ...	Lakme	250.00	175.0	https://www.bigbasket.com/medi

8208 rows × 9 columns

df1.head()

	ProductName	Brand	Price	DiscountPrice	
0	Onion (Loose)	Fresho	69.75	52.0	https://www.bigbasket.com/media/uplo
1	Onion	Fresho	174.35	130.0	https://www.bigbasket.com/media/uplo
2	Onion (Loose)	Fresho	34.87	26.0	https://www.bigbasket.com/media/uplo
3	Onion	Fresho	69.74	52.0	https://www.bigbasket.com/media/uplo
4	Onion (Loose)	Fresho	174.37	129.0	https://www.bigbasket.com/media/uplo

df1.tail()

	ProductName	Brand	Price	DiscountPrice	
8203	Foil Alphabet Balloon - Letter V, Party Decor,...	Bvishal	49.0	25.0	https://www.bigbasket.com/medi
8204	Decoration Balls - Used For Parties, Unique De...	Bvishal	399.0	249.0	https://www.bigbasket.com/medi
8205	Foundation Blending Brush - 230	PAC	465.0	232.5	https://www.bigbasket.com/medi
8206	One Week Immunity Booster	The Healthy Company	799.0	799.0	https://www.bigbasket.com/medi
8207	Blush & Glow - Green Apple Apricot Gel Scrub, ...	Lakme	250.0	175.0	https://www.bigbasket.com/medi

df1.sample()

	ProductName	Brand	Price	DiscountPrice	
6710	Perfume - Once More for Women	RAMSONS	330.0	214.5	https://www.bigbasket.com/me

```
df1.shape
```

```
(8208, 9)
```

```
df1.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 8208 entries, 0 to 8207
Data columns (total 9 columns):
 #   Column                Non-Null Count  Dtype  
---  -
 0   ProductName           8208 non-null   object 
 1   Brand                 8208 non-null   object 
 2   Price                 8208 non-null   float64
 3   DiscountPrice         8208 non-null   float64
 4   Image_Url             8208 non-null   object 
 5   Quantity              8208 non-null   object 
 6   Category              8208 non-null   object 
 7   SubCategory           8208 non-null   object 
 8   Absolute_Url          8208 non-null   object 
dtypes: float64(2), object(7)
memory usage: 577.3+ KB
```

```
df1.describe()
```

	Price	DiscountPrice
count	8208.000000	8208.000000
mean	545.418589	356.907968
std	664.546512	438.097837
min	5.000000	3.000000
25%	190.000000	129.000000
50%	360.000000	238.000000
75%	650.000000	429.000000
max	10140.000000	7605.000000

```
df1.dtypes
```

```
0
```

ProductName	object
Brand	object
Price	float64
DiscountPrice	float64
Image_Url	object
Quantity	object
Category	object
SubCategory	object
Absolute_Url	object

dtype: object

```
df1.columns
```

```
Index(['ProductName', 'Brand', 'Price', 'DiscountPrice', 'Image_Url',  
      'Quantity', 'Category', 'SubCategory', 'Absolute_Url'],  
      dtype='object')
```

```
df1.index
```

```
RangeIndex(start=0, stop=8208, step=1)
```

```
df1["Price"]
```

	Price
0	69.75
1	174.35
2	34.87
3	69.74
4	174.37
...	...
8203	49.00
8204	399.00
8205	465.00
8206	799.00
8207	250.00

8208 rows × 1 columns

dtype: float64

```
df1['Price', 'Brand']
```

```

-----
KeyError                                Traceback (most recent call
last)
/usr/local/lib/python3.12/dist-packages/pandas/core/indexes/base.py in
get_loc(self, key)
    3804         try:
-> 3805             return self._engine.get_loc(casted_key)
    3806         except KeyError as err:

index.pyx in pandas._libs.index.IndexEngine.get_loc()

index.pyx in pandas._libs.index.IndexEngine.get_loc()

pandas/_libs/hashtable_class_helper.pxi in
pandas._libs.hashtable.PyObjectHashTable.get_item()

pandas/_libs/hashtable_class_helper.pxi in
pandas._libs.hashtable.PyObjectHashTable.get_item()

KeyError: ('Price', 'Brand')

```

The above exception was the direct cause of the following exception:

```

KeyError                                Traceback (most recent call
last)
-----
      2 frames -----
/usr/local/lib/python3.12/dist-packages/pandas/core/indexes/base.py in
get_loc(self, key)
    3810         ):
    3811             raise InvalidIndexError(key)
-> 3812         raise KeyError(key) from err

```

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

	0
ProductName	0
Brand	0
Price	0
DiscountPrice	0
Image_Url	0
Quantity	0
Category	0
SubCategory	0
Absolute_Url	0

dtype: int64

```
df1.notnull()
```

	ProductName	Brand	Price	DiscountPrice	Image_Url	Quantity	Catego
0		True	True	True	True	True	T
1		True	True	True	True	True	T
2		True	True	True	True	True	T
3		True	True	True	True	True	T
4		True	True	True	True	True	T
...	
8203		True	True	True	True	True	T
8204		True	True	True	True	True	T
8205		True	True	True	True	True	T
8206		True	True	True	True	True	T
8207		True	True	True	True	True	T

8208 rows × 9 columns

```
df1.dropna()
```


	ProductName	Brand	Price	DiscountPrice	
0	Onion (Loose)	Fresho	69.75	52.0	https://www.bigbasket.com/medi
1	Onion	Fresho	174.35	130.0	https://www.bigbasket.com/medi
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8207	Blush & Glow - Green Apple Apricot Gel Scrub, ...	Lakme	250.00	175.0	https://www.bigbasket.com/medi

8208 rows × 9 columns

```
df1.drop_duplicates()
```

	ProductName	Brand	Price	DiscountPrice	
0	Onion (Loose)	Fresho	69.75	52.0	https://www.bigbasket.com/medi
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8208 rows × 9 columns

```
df1.groupby('Brand').count()
```

ProductName	Price	DiscountPrice	Image_Url	Quantity	Category
Brand					
109°F	1	1	1	1	1
24 Mantra	5	5	5	5	5
5:15PM	7	7	7	7	7
A-1 Chips	1	1	1	1	1

df1['Price'].value_counts()							
...	count
nature's Price eco		1	1	1	1	1	1
399.0	208	6	6	6	6	6	6
499.0 sumeru	169	2	2	2	2	2	2
299.0	158	6	6	6	6	6	6
199.0	156						
250.0	136						
...	...						
10140.0	1						
1160.0	1						
4355.0	1						
6755.0	1						
1645.0	1						
1043 rows x 1 columns							