

```
In [1]: import pandas as pd
```

```
In [2]: pd.__version__
```

```
Out[2]: '2.2.2'
```

```
In [3]: df=pd.read_csv(r'C:\Users\dell\Downloads\Sample - Superstore_Orders.csv')  
df
```

Out[3]:

	Category	City	Country/Region	Customer Name	Manufacturer	Order Date	Order ID
0	Office Supplies	Houston	United States	Darren Powers	Message Book	03-01-2020	US-2020-10380C
1	Office Supplies	Naperville	United States	Phillina Ober	GBC	04-01-2020	US-2020-112326
2	Office Supplies	Naperville	United States	Phillina Ober	Avery	04-01-2020	US-2020-112326
3	Office Supplies	Naperville	United States	Phillina Ober	SAFCO	04-01-2020	US-2020-112326
4	Office Supplies	Philadelphia	United States	Mick Brown	Avery	05-01-2020	US-2020-141817
...							
10189	Office Supplies	New York City	United States	Patrick O'Donnell	Wilson Jones	30-12-2023	US-2023-143259
10190	Office Supplies	Fairfield	United States	Erica Bern	GBC	30-12-2023	US-2023-115427
10191	Office Supplies	Loveland	United States	Jill Matthias	Other	30-12-2023	US-2023-15672C
10192	Technology	New York City	United States	Patrick O'Donnell	Other	30-12-2023	US-2023-143259
10193	Office Supplies	Charlottetown	Canada	Harry Olson	Wilson Jones	30-12-2023	CA-2023-14350C

10194 rows × 19 columns

```
In [4]: len(df)
```

```
Out[4]: 10194
```

```
In [5]: df.columns
```

```
Out[5]: Index(['Category', 'City', 'Country/Region', 'Customer Name', 'Manufacturer',  
               'Order Date', 'Order ID', 'Postal Code', 'Product Name', 'Region',  
               'Segment', 'Ship Date', 'Ship Mode', 'State/Province', 'Sub-Category',  
               'Discount', 'Profit', 'Quantity', 'Sales'],  
              dtype='object')
```

```
In [6]: df.shape
```

```
Out[6]: (10194, 19)
```

```
In [7]: df.isnull()
```

	Category	City	Country/Region	Customer Name	Manufacturer	Order Date	Order ID	Postal Code	F
0	False	False		False	False	False	False	False	False
1	False	False		False	False	False	False	False	False
2	False	False		False	False	False	False	False	False
3	False	False		False	False	False	False	False	False
4	False	False		False	False	False	False	False	False
...
10189	False	False		False	False	False	False	False	False
10190	False	False		False	False	False	False	False	False
10191	False	False		False	False	False	False	False	False
10192	False	False		False	False	False	False	False	False
10193	False	False		False	False	False	False	False	False

10194 rows × 19 columns

```
In [8]: df.isnull().sum()
```

```
Out[8]: Category      0  
City          0  
Country/Region  0  
Customer Name   0  
Manufacturer    0  
Order Date     0  
Order ID       0  
Postal Code    0  
Product Name   0  
Region         0  
Segment        0  
Ship Date      0  
Ship Mode      0  
State/Province 0  
Sub-Category   0  
Discount       0  
Profit         0  
Quantity       0  
Sales          0  
dtype: int64
```

```
In [9]: df.isna()
```

Out[9]:

	Category	City	Country/Region	Customer Name	Manufacturer	Order Date	Order ID	Postal Code	F
0	False	False		False	False	False	False	False	False
1	False	False		False	False	False	False	False	False
2	False	False		False	False	False	False	False	False
3	False	False		False	False	False	False	False	False
4	False	False		False	False	False	False	False	False
...
10189	False	False		False	False	False	False	False	False
10190	False	False		False	False	False	False	False	False
10191	False	False		False	False	False	False	False	False
10192	False	False		False	False	False	False	False	False
10193	False	False		False	False	False	False	False	False

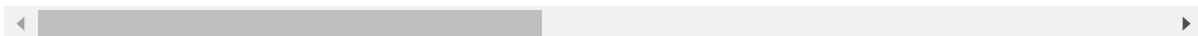
10194 rows × 19 columns



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

Out[10]:

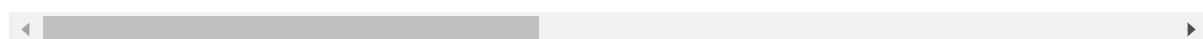
	Category	City	Country/Region	Customer Name	Manufacturer	Order Date	Order ID	Postal Code
0	Office Supplies	Houston	United States	Darren Powers	Message Book	03-01-2020	US-2020-103800	77095
1	Office Supplies	Naperville	United States	Phillina Ober	GBC	04-01-2020	US-2020-112326	60540
2	Office Supplies	Naperville	United States	Phillina Ober	Avery	04-01-2020	US-2020-112326	60540
3	Office Supplies	Naperville	United States	Phillina Ober	SAFCO	04-01-2020	US-2020-112326	60540
4	Office Supplies	Philadelphia	United States	Mick Brown	Avery	05-01-2020	US-2020-141817	19143



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

Out[11]:

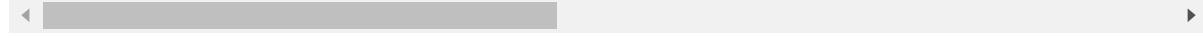
	Category	City	Country/Region	Customer Name	Manufacturer	Order Date	Order ID
10189	Office Supplies	New York City	United States	Patrick O'Donnell	Wilson Jones	30-12-2023	US-2023-143259
10190	Office Supplies	Fairfield	United States	Erica Bern	GBC	30-12-2023	US-2023-115427
10191	Office Supplies	Loveland	United States	Jill Matthias	Other	30-12-2023	US-2023-156720
10192	Technology	New York City	United States	Patrick O'Donnell	Other	30-12-2023	US-2023-143259
10193	Office Supplies	Charlottetown	Canada	Harry Olson	Wilson Jones	30-12-2023	CA-2023-143500



In [12]: df.head(2)

Out[12]:

	Category	City	Country/Region	Customer Name	Manufacturer	Order Date	Order ID	Postal Code
0	Office Supplies	Houston	United States	Darren Powers	Message Book	03-01-2020	US-2020-103800	77095
1	Office Supplies	Naperville	United States	Phillina Ober	GBC	04-01-2020	US-2020-112326	60540



In [13]: df[:]

Out[13]:

	Category	City	Country/Region	Customer Name	Manufacturer	Order Date	Order ID
0	Office Supplies	Houston	United States	Darren Powers	Message Book	03-01-2020	US-2020-10380C
1	Office Supplies	Naperville	United States	Phillina Ober	GBC	04-01-2020	US-2020-112326
2	Office Supplies	Naperville	United States	Phillina Ober	Avery	04-01-2020	US-2020-112326
3	Office Supplies	Naperville	United States	Phillina Ober	SAFCO	04-01-2020	US-2020-112326
4	Office Supplies	Philadelphia	United States	Mick Brown	Avery	05-01-2020	US-2020-141817
...							
10189	Office Supplies	New York City	United States	Patrick O'Donnell	Wilson Jones	30-12-2023	US-2023-143259
10190	Office Supplies	Fairfield	United States	Erica Bern	GBC	30-12-2023	US-2023-115427
10191	Office Supplies	Loveland	United States	Jill Matthias	Other	30-12-2023	US-2023-15672C
10192	Technology	New York City	United States	Patrick O'Donnell	Other	30-12-2023	US-2023-143259
10193	Office Supplies	Charlottetown	Canada	Harry Olson	Wilson Jones	30-12-2023	CA-2023-14350C

10194 rows × 19 columns

```
In [14]: df[:::-1]
```

Out[14]:

	Category	City	Country/Region	Customer Name	Manufacturer	Order Date	Order ID
10193	Office Supplies	Charlottetown	Canada	Harry Olson	Wilson Jones	30-12-2023	CA-2023-143500
10192	Technology	New York City	United States	Patrick O'Donnell	Other	30-12-2023	US-2023-143259
10191	Office Supplies	Loveland	United States	Jill Matthias	Other	30-12-2023	US-2023-156720
10190	Office Supplies	Fairfield	United States	Erica Bern	GBC	30-12-2023	US-2023-115427
10189	Office Supplies	New York City	United States	Patrick O'Donnell	Wilson Jones	30-12-2023	US-2023-143259
...
4	Office Supplies	Philadelphia	United States	Mick Brown	Avery	05-01-2020	US-2020-141817
3	Office Supplies	Naperville	United States	Phillina Ober	SAFCO	04-01-2020	US-2020-112326
2	Office Supplies	Naperville	United States	Phillina Ober	Avery	04-01-2020	US-2020-112326
1	Office Supplies	Naperville	United States	Phillina Ober	GBC	04-01-2020	US-2020-112326
0	Office Supplies	Houston	United States	Darren Powers	Message Book	03-01-2020	US-2020-103800

10194 rows × 19 columns

In [15]: df[1:10:3]

Out[15]:

	Category	City	Country/Region	Customer Name	Manufacturer	Order Date	Order ID	Postal Code
1	Office Supplies	Naperville	United States	Phillina Ober	GBC	04-01-2020	US-2020-112326	60540
4	Office Supplies	Philadelphia	United States	Mick Brown	Avery	05-01-2020	US-2020-141817	19143
7	Office Supplies	Athens	United States	Jack O'Briant	Dixon	06-01-2020	US-2020-106054	30605

In [16]: df.describe()

Out[16]:

	Discount	Profit	Quantity	Sales
count	10194.000000	10194.000000	10194.000000	10194.000000
mean	0.155385	28.673417	3.791838	228.225854
std	0.206249	232.465115	2.228317	619.906839
min	0.000000	-6599.978000	1.000000	0.444000
25%	0.000000	1.760800	2.000000	17.220000
50%	0.200000	8.690000	3.000000	53.910000
75%	0.200000	29.297925	5.000000	209.500000
max	0.800000	8399.976000	14.000000	22638.480000

In [17]: df.info()

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 10194 entries, 0 to 10193
Data columns (total 19 columns):
 #   Column            Non-Null Count  Dtype  
--- 
 0   Category          10194 non-null   object  
 1   City               10194 non-null   object  
 2   Country/Region    10194 non-null   object  
 3   Customer Name     10194 non-null   object  
 4   Manufacturer      10194 non-null   object  
 5   Order Date        10194 non-null   object  
 6   Order ID          10194 non-null   object  
 7   Postal Code       10194 non-null   object  
 8   Product Name      10194 non-null   object  
 9   Region             10194 non-null   object  
 10  Segment            10194 non-null   object  
 11  Ship Date         10194 non-null   object  
 12  Ship Mode         10194 non-null   object  
 13  State/Province    10194 non-null   object  
 14  Sub-Category      10194 non-null   object  
 15  Discount           10194 non-null   float64 
 16  Profit              10194 non-null   float64 
 17  Quantity            10194 non-null   int64  
 18  Sales               10194 non-null   float64 
dtypes: float64(3), int64(1), object(15)
memory usage: 1.5+ MB
```

```
In [18]: df['Category']
```

```
Out[18]: 0      Office Supplies
 1      Office Supplies
 2      Office Supplies
 3      Office Supplies
 4      Office Supplies
 ...
 10189  Office Supplies
 10190  Office Supplies
 10191  Office Supplies
 10192      Technology
 10193  Office Supplies
Name: Category, Length: 10194, dtype: object
```

```
In [19]: df[['Category','City']]
```

Out[19]:

	Category	City
0	Office Supplies	Houston
1	Office Supplies	Naperville
2	Office Supplies	Naperville
3	Office Supplies	Naperville
4	Office Supplies	Philadelphia
...
10189	Office Supplies	New York City
10190	Office Supplies	Fairfield
10191	Office Supplies	Loveland
10192	Technology	New York City
10193	Office Supplies	Charlottetown

10194 rows × 2 columns

In [20]:

`df[['Category', 'City', 'Manufacturer']]`

Out[20]:

	Category	City	Manufacturer
0	Office Supplies	Houston	Message Book
1	Office Supplies	Naperville	GBC
2	Office Supplies	Naperville	Avery
3	Office Supplies	Naperville	SAFCO
4	Office Supplies	Philadelphia	Avery
...
10189	Office Supplies	New York City	Wilson Jones
10190	Office Supplies	Fairfield	GBC
10191	Office Supplies	Loveland	Other
10192	Technology	New York City	Other
10193	Office Supplies	Charlottetown	Wilson Jones

10194 rows × 3 columns

In [21]:

`len(df.dtypes)`

Out[21]: 19

```
In [22]: df.columns
```

```
Out[22]: Index(['Category', 'City', 'Country/Region', 'Customer Name', 'Manufacturer',
       'Order Date', 'Order ID', 'Postal Code', 'Product Name', 'Region',
       'Segment', 'Ship Date', 'Ship Mode', 'State/Province', 'Sub-Category',
       'Discount', 'Profit', 'Quantity', 'Sales'],
      dtype='object')
```

```
In [38]: store=df[['Category', 'City', 'Country/Region', 'Customer Name', 'Manufacturer',
       'Order Date', 'Order ID', 'Postal Code', 'Product Name', 'Region',
       'Segment', 'Ship Date', 'Ship Mode', 'State/Province', 'Sub-Category','Disco
```

```
In [39]: store
```

Out[39]:

	Category	City	Country/Region	Customer Name	Manufacturer	Order Date	Order ID
0	Office Supplies	Houston	United States	Darren Powers	Message Book	03-01-2020	US-2020-10380C
1	Office Supplies	Naperville	United States	Phillina Ober	GBC	04-01-2020	US-2020-112326
2	Office Supplies	Naperville	United States	Phillina Ober	Avery	04-01-2020	US-2020-112326
3	Office Supplies	Naperville	United States	Phillina Ober	SAFCO	04-01-2020	US-2020-112326
4	Office Supplies	Philadelphia	United States	Mick Brown	Avery	05-01-2020	US-2020-141817
...							
10189	Office Supplies	New York City	United States	Patrick O'Donnell	Wilson Jones	30-12-2023	US-2023-143259
10190	Office Supplies	Fairfield	United States	Erica Bern	GBC	30-12-2023	US-2023-115427
10191	Office Supplies	Loveland	United States	Jill Matthias	Other	30-12-2023	US-2023-15672C
10192	Technology	New York City	United States	Patrick O'Donnell	Other	30-12-2023	US-2023-143259
10193	Office Supplies	Charlottetown	Canada	Harry Olson	Wilson Jones	30-12-2023	CA-2023-14350C

10194 rows × 19 columns

```
In [25]: print(len(store))
```

10194

```
In [42]: store_categorical=store[['Category', 'City', 'Country/Region', 'Customer Name', 'Ma  
'Order Date', 'Order ID', 'Postal Code', 'Product Name', 'Region',  
'Segment', 'Ship Date', 'Ship Mode', 'State/Province', 'Sub-Category']]
```

```
In [43]: store_categorical.head()
```

Out[43]:

	Category	City	Country/Region	Customer Name	Manufacturer	Order Date	Order ID	Postal Code
0	Office Supplies	Houston	United States	Darren Powers	Message Book	03-01-2020	US-2020-103800	77095
1	Office Supplies	Naperville	United States	Phillina Ober	GBC	04-01-2020	US-2020-112326	60540
2	Office Supplies	Naperville	United States	Phillina Ober	Avery	04-01-2020	US-2020-112326	60540
3	Office Supplies	Naperville	United States	Phillina Ober	SAFCO	04-01-2020	US-2020-112326	60540
4	Office Supplies	Philadelphia	United States	Mick Brown	Avery	05-01-2020	US-2020-141817	19143

```
In [45]: store_numerical=store[['Discount', 'Profit', 'Quantity', 'Sales']]  
store_numerical.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 10194 entries, 0 to 10193
Data columns (total 4 columns):
 #   Column      Non-Null Count  Dtype  
---  --          -----          ----- 
 0   Discount    10194 non-null   float64
 1   Profit      10194 non-null   float64
 2   Quantity    10194 non-null   int64  
 3   Sales       10194 non-null   float64
dtypes: float64(3), int64(1)
memory usage: 318.7 KB
```

```
In [46]: store_numerical.dtypes
```

```
Out[46]: Discount      float64
          Profit       float64
          Quantity     int64
          Sales        float64
          dtype: object
```

```
In [48]: print(len(store.columns))
          print(len(store_categorical.columns))
          print(len(store_numerical.columns))
```

```
19
15
4
```

```
In [49]: store
```

Out[49]:

	Category	City	Country/Region	Customer Name	Manufacturer	Order Date	Order ID
0	Office Supplies	Houston	United States	Darren Powers	Message Book	03-01-2020	US-2020-10380C
1	Office Supplies	Naperville	United States	Phillina Ober	GBC	04-01-2020	US-2020-112326
2	Office Supplies	Naperville	United States	Phillina Ober	Avery	04-01-2020	US-2020-112326
3	Office Supplies	Naperville	United States	Phillina Ober	SAFCO	04-01-2020	US-2020-112326
4	Office Supplies	Philadelphia	United States	Mick Brown	Avery	05-01-2020	US-2020-141817
...							
10189	Office Supplies	New York City	United States	Patrick O'Donnell	Wilson Jones	30-12-2023	US-2023-143259
10190	Office Supplies	Fairfield	United States	Erica Bern	GBC	30-12-2023	US-2023-115427
10191	Office Supplies	Loveland	United States	Jill Matthias	Other	30-12-2023	US-2023-15672C
10192	Technology	New York City	United States	Patrick O'Donnell	Other	30-12-2023	US-2023-143259
10193	Office Supplies	Charlottetown	Canada	Harry Olson	Wilson Jones	30-12-2023	CA-2023-14350C

10194 rows × 19 columns

```
In [50]: store[0:50]
```

Out[50]:

	Category	City	Country/Region	Customer Name	Manufacturer	Order Date	Order ID	P
0	Office Supplies	Houston	United States	Darren Powers	Message Book	03-01-2020	US-2020-103800	7
1	Office Supplies	Naperville	United States	Phillina Ober	GBC	04-01-2020	US-2020-112326	6
2	Office Supplies	Naperville	United States	Phillina Ober	Avery	04-01-2020	US-2020-112326	6
3	Office Supplies	Naperville	United States	Phillina Ober	SAFCO	04-01-2020	US-2020-112326	6
4	Office Supplies	Philadelphia	United States	Mick Brown	Avery	05-01-2020	US-2020-141817	1
5	Furniture	Henderson	United States	Maria Etezadi	Global	06-01-2020	US-2020-167199	4
6	Office Supplies	Henderson	United States	Maria Etezadi	Rogers	06-01-2020	US-2020-167199	4
7	Office Supplies	Athens	United States	Jack O'Briant	Dixon	06-01-2020	US-2020-106054	3
8	Office Supplies	Henderson	United States	Maria Etezadi	Ibico	06-01-2020	US-2020-167199	4
9	Office Supplies	Henderson	United States	Maria Etezadi	Alliance	06-01-2020	US-2020-167199	4
10	Office Supplies	Henderson	United States	Maria Etezadi	Southworth	06-01-2020	US-2020-167199	4

	Category	City	Country/Region	Customer Name	Manufacturer	Order Date	Order ID	P
11	Office Supplies	Los Angeles	United States	Lycoris Saunders	Xerox	06-01-2020	US-2020-130813	9
12	Technology	Henderson	United States	Maria Etezadi	Other	06-01-2020	US-2020-167199	4
13	Technology	Henderson	United States	Maria Etezadi	GE	06-01-2020	US-2020-167199	4
14	Furniture	Huntsville	United States	Vivek Sundaresam	Howard Miller	07-01-2020	US-2020-105417	7
15	Office Supplies	Huntsville	United States	Vivek Sundaresam	Acco	07-01-2020	US-2020-105417	7
16	Office Supplies	Laredo	United States	Melanie Seite	Newell	09-01-2020	US-2020-135405	7
17	Technology	Laredo	United States	Melanie Seite	Memorex	09-01-2020	US-2020-135405	7
18	Furniture	Springfield	United States	Anthony Jacobs	Howard Miller	10-01-2020	US-2020-149020	2
19	Office Supplies	Springfield	United States	Anthony Jacobs	Avery	10-01-2020	US-2020-149020	2
20	Furniture	Dover	United States	Seth Vernon	DAX	11-01-2020	US-2020-130092	1

	Category	City	Country/Region	Customer Name	Manufacturer	Order Date	Order ID	P
21	Furniture	San Francisco	United States	Brian Dahlen	O'Sullivan	13-01-2020	US-2020-157147	9
22	Furniture	Mount Pleasant	United States	Natalie DeCherney	Global	13-01-2020	US-2020-109232	2
23	Office Supplies	San Francisco	United States	Brian Dahlen	Other	13-01-2020	US-2020-157147	9
24	Office Supplies	Newark	United States	Michael Moore	Avery	13-01-2020	US-2020-118192	4
25	Office Supplies	Bossier City	United States	Chris Selesnick	3-ring staple pack	13-01-2020	US-2020-162775	7
26	Office Supplies	Bossier City	United States	Chris Selesnick	Other	13-01-2020	US-2020-162775	7
27	Office Supplies	Bossier City	United States	Chris Selesnick	Staple envelope	13-01-2020	US-2020-162775	7
28	Office Supplies	Newark	United States	Michael Moore	Xerox	13-01-2020	US-2020-118192	4
29	Office Supplies	Bossier City	United States	Chris Selesnick	Fellowes	13-01-2020	US-2020-162775	7
30	Office Supplies	San Francisco	United States	Brian Dahlen	Tennsco	13-01-2020	US-2020-157147	9
31	Technology	Bossier City	United States	Chris Selesnick	Plantronics	13-01-2020	US-2020-162775	7
32	Furniture	Philadelphia	United States	Brendan Sweed	Sauder	14-01-2020	US-2020-149524	1

	Category	City	Country/Region	Customer Name	Manufacturer	Order Date	Order ID	P
33	Technology	Roswell	United States	Erica Hackney	Logitech	15-01-2020	US-2020-103366	3
34	Furniture	Philadelphia	United States	Delfina Latchford	DAX	16-01-2020	US-2020-115791	1
35	Office Supplies	Philadelphia	United States	Delfina Latchford	GBC	16-01-2020	US-2020-115791	1
36	Office Supplies	Philadelphia	United States	Delfina Latchford	Other	16-01-2020	US-2020-115791	1
37	Technology	Philadelphia	United States	Delfina Latchford	AT&T	16-01-2020	US-2020-115791	1
38	Office Supplies	Springfield	United States	David Wiener	Fellowes	18-01-2020	US-2020-123477	9
39	Furniture	Scottsdale	United States	Toby Swindell	O'Sullivan	19-01-2020	US-2020-146591	8
40	Office Supplies	Scottsdale	United States	Toby Swindell	GBC	19-01-2020	US-2020-146591	8
41	Office Supplies	Scottsdale	United States	Toby Swindell	Tyvek	19-01-2020	US-2020-146591	8
42	Office Supplies	Scottsdale	United States	Toby Swindell	TOPS	19-01-2020	US-2020-146591	8
43	Furniture	Jonesboro	United States	Hunter Lopez	Hon	20-01-	US-2020-	7

	Category	City	Country/Region	Customer Name	Manufacturer	Order Date	Order ID	P
						2020-01-2020	147627	
44	Furniture	Westland	United States	Xylona Preis	Ultra	2020-01-2020	2020-167927	4
45	Furniture	Westland	United States	Xylona Preis	Eldon	2020-01-2020	2020-167927	4
46	Furniture	Jonesboro	United States	Hunter Lopez	Eldon	2020-01-2020	2020-147627	7
47	Furniture	Los Angeles	United States	Mark Van Huff	Eldon	2020-01-2020	2020-148614	9
48	Office Supplies	Westland	United States	Xylona Preis	Holmes	2020-01-2020	2020-167927	4
49	Office Supplies	Jonesboro	United States	Hunter Lopez	Newell	2020-01-2020	2020-147627	7

In [51]: `store_categorical`

Out[51]:

	Category	City	Country/Region	Customer Name	Manufacturer	Order Date	Order ID
0	Office Supplies	Houston	United States	Darren Powers	Message Book	03-01-2020	US-2020-10380C
1	Office Supplies	Naperville	United States	Phillina Ober	GBC	04-01-2020	US-2020-112326
2	Office Supplies	Naperville	United States	Phillina Ober	Avery	04-01-2020	US-2020-112326
3	Office Supplies	Naperville	United States	Phillina Ober	SAFCO	04-01-2020	US-2020-112326
4	Office Supplies	Philadelphia	United States	Mick Brown	Avery	05-01-2020	US-2020-141817
...							
10189	Office Supplies	New York City	United States	Patrick O'Donnell	Wilson Jones	30-12-2023	US-2023-143259
10190	Office Supplies	Fairfield	United States	Erica Bern	GBC	30-12-2023	US-2023-115427
10191	Office Supplies	Loveland	United States	Jill Matthias	Other	30-12-2023	US-2023-15672C
10192	Technology	New York City	United States	Patrick O'Donnell	Other	30-12-2023	US-2023-143259
10193	Office Supplies	Charlottetown	Canada	Harry Olson	Wilson Jones	30-12-2023	CA-2023-14350C

10194 rows × 15 columns

```
In [52]: store_categorical[::10]
```

Out[52]:

	Category	City	Country/Region	Customer Name	Manufacturer	Order Date	Order ID
0	Office Supplies	Houston	United States	Darren Powers	Message Book	03-01-2020	US-2020-103800
10	Office Supplies	Henderson	United States	Maria Etezadi	Southworth	06-01-2020	US-2020-167199
20	Furniture	Dover	United States	Seth Vernon	DAX	11-01-2020	US-2020-130092
30	Office Supplies	San Francisco	United States	Brian Dahlen	Tennsco	13-01-2020	US-2020-157147
40	Office Supplies	Scottsdale	United States	Toby Swindell	GBC	19-01-2020	US-2020-146591
...
10150	Office Supplies	Newark	United States	Dan Reichenbach	BIC	27-12-2023	US-2023-134404
10160	Office Supplies	New York City	United States	Jennifer Ferguson	Storex	28-12-2023	US-2023-164826
10170	Technology	New York City	United States	Jennifer Ferguson	Other	28-12-2023	US-2023-164826
10180	Office Supplies	New York City	United States	Michael Chen	Other	29-12-2023	US-2023-102638
10190	Office Supplies	Fairfield	United States	Erica Bern	GBC	30-12-2023	US-2023-115427

1020 rows × 15 columns



In [53]: `store_numerical`

Out[53]:

	Discount	Profit	Quantity	Sales
0	0.2	5.5512	2	16.448
1	0.8	-5.4870	2	3.540
2	0.2	4.2717	3	11.784
3	0.2	-64.7748	3	272.736
4	0.2	4.8840	3	19.536
...
10189	0.2	19.7910	3	52.776
10190	0.2	6.4750	2	20.720
10191	0.2	-0.6048	3	3.024
10192	0.0	2.7279	7	90.930
10193	0.2	-0.6048	3	3.024

10194 rows × 4 columns

In [54]: `store_numerical[10:500:50]`

Out[54]:

	Discount	Profit	Quantity	Sales
10	0.0	3.0084	1	6.540
60	0.2	4.1028	3	25.248
110	0.0	22.9488	2	81.960
160	0.2	21.8352	6	436.704
210	0.0	75.9696	4	155.040
260	0.0	15.9180	4	45.480
310	0.0	6.6584	7	22.960
360	0.0	15.5520	5	32.400
410	0.0	129.3786	9	497.610
460	0.5	-216.9783	7	349.965

1.1 Pandas library day-1 work shape