pandas

pandas are used to handle dataframe

```
In [1]: import pandas as pd
In [2]: pd.__version__
Out[2]: '2.2.2'
In [9]: pd.read_csv(r'C:\Users\91630\Downloads\Sample - Superstore_Orders.csv')
```

	Category	City	Country/Region	Customer Name	Manufacturer	Order Date	Oı
0	Office Supplies	Houston	United States	Darren Powers	Message Book	03- 01- 2020	2(103
1	Office Supplies	Naperville	United States	Phillina Ober	GBC	04- 01- 2020	2(112
2	Office Supplies	Naperville	United States	Phillina Ober	Avery	04- 01- 2020	2(112
3	Office Supplies	Naperville	United States	Phillina Ober	SAFCO	04- 01- 2020	2(112
4	Office Supplies	Philadelphia	United States	Mick Brown	Avery	05- 01- 2020	2(141
•••							
10189	Office Supplies	New York City	United States	Patrick O'Donnell	Wilson Jones	30- 12- 2023	2(143
10190	Office Supplies	Fairfield	United States	Erica Bern	GBC	30- 12- 2023	2(115
10191	Office Supplies	Loveland	United States	Jill Matthias	Other	30- 12- 2023	2(156
10192	Technology	New York City	United States	Patrick O'Donnell	Other	30- 12- 2023	2(143
10193	Office Supplies	Charlottetown	Canada	Harry Olson	Wilson Jones	30- 12- 2023	2(143

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	Category	City	Country/Region	Customer Name	Manufacturer	Order Date	Oı
0	Office Supplies	Houston	United States	Darren Powers	Message Book	03- 01- 2020	2(103
1	Office Supplies	Naperville	United States	Phillina Ober	GBC	04- 01- 2020	2(112
2	Office Supplies	Naperville	United States	Phillina Ober	Avery	04- 01- 2020	2(112
3	Office Supplies	Naperville	United States	Phillina Ober	SAFCO	04- 01- 2020	2(112
4	Office Supplies	Philadelphia	United States	Mick Brown	Avery	05- 01- 2020	2(141
•••							
10189	Office Supplies	New York City	United States	Patrick O'Donnell	Wilson Jones	30- 12- 2023	2(143
10190	Office Supplies	Fairfield	United States	Erica Bern	GBC	30- 12- 2023	2(115
10191	Office Supplies	Loveland	United States	Jill Matthias	Other	30- 12- 2023	2(15€
10192	Technology	New York City	United States	Patrick O'Donnell	Other	30- 12- 2023	2(143
10193	Office Supplies	Charlottetown	Canada	Harry Olson	Wilson Jones	30- 12- 2023	2(143

In [19]:	sto	ore[0:4]									
Out[19]:		Category	City	Country/Region	Customer Name	Manufacturer	Order Date	Order ID	Post Coc		
	0	Office Supplies	Houston	United States	Darren Powers	Message Book	03- 01- 2020	US- 2020- 103800	7701		
	1	Office Supplies	Naperville	United States	Phillina Ober	GBC	04- 01- 2020	US- 2020- 112326	6054		
	2	Office Supplies	Naperville	United States	Phillina Ober	Avery	04- 01- 2020	US- 2020- 112326	6054		
	3	Office Supplies	Naperville	United States	Phillina Ober	SAFCO	04- 01- 2020	US- 2020- 112326	6054		
	4										
In [21]:	store[0:10:5]										
Out[21]:		Category	City	Country/Region	Customer Name	Manufacturer	Order Date	Order ID	Pos		
	0	Office Supplies	Houston	United States	Darren Powers	Message Book	03- 01- 2020	US- 2020- 103800	770		
	5	Furniture	Henderson	United States	Maria Etezadi	Global	06- 01- 2020	US- 2020- 167199	424		
	4								•		

	Category	City	Country/Region	Customer Name	Manufacturer	Order Date	Order ID	Po C
0	Office Supplies	Houston	United States	Darren Powers	Message Book	03- 01- 2020	US- 2020- 103800	77
1	Office Supplies	Naperville	United States	Phillina Ober	GBC	04- 01- 2020	US- 2020- 112326	60
2	Office Supplies	Naperville	United States	Phillina Ober	Avery	04- 01- 2020	US- 2020- 112326	60
3	Office Supplies	Naperville	United States	Phillina Ober	SAFCO	04- 01- 2020	US- 2020- 112326	60
4	Office Supplies	Philadelphia	United States	Mick Brown	Avery	05- 01- 2020	US- 2020- 141817	19
5	Furniture	Henderson	United States	Maria Etezadi	Global	06- 01- 2020	US- 2020- 167199	42
6	Office Supplies	Henderson	United States	Maria Etezadi	Rogers	06- 01- 2020	US- 2020- 167199	42
7	Office Supplies	Athens	United States	Jack O'Briant	Dixon	06- 01- 2020	US- 2020- 106054	30
8	Office Supplies	Henderson	United States	Maria Etezadi	Ibico	06- 01- 2020	US- 2020- 167199	42

	Category	City	Country/Region	Customer Name	Manufacturer	Order Date	Order ID	Po C
9	Office Supplies	Henderson	United States	Maria Etezadi	Alliance	06- 01- 2020	US- 2020- 167199	42

In [25]: store[0:25:5]

Out[25]:		Category	City	Country/Region	Customer Name	Manufacturer	Order Date	Order I ID
	0	Office Supplies	Houston	United States	Darren Powers	Message Book	03- 01- 2020	US- 2020- 103800

5	Furniture	Henderson	United States	Maria Etezadi	Global		US- 2020-	
				Ltczadi		2020	167199	

10	Office Supplies	Henderson	United States	Maria Etezadi	Southworth	00	

15	Office	Huntsville	United States	Vivek	Acco	07- 01-	US- 2020-
	Supplies			Sundaresam		2020	105417

						11-	US-
20	Furniture	Dover	United States	Seth Vernon	DAX	01-	2020-
						2020	130092

In [27]: len(store)

Out[27]: **10194**

In [29]: id(store)

Out[29]: 1305240099568

In [40]: store

_		Category	City	Country/Region	Customer Name	Manufacturer	Order Date	Oı	
	0	Office Supplies	Houston	United States	Darren Powers	Message Book	03- 01- 2020	2(103	
	1	Office Supplies	Naperville	United States	Phillina Ober	GBC	04- 01- 2020	2(112	
	2	Office Supplies	Naperville	United States	Phillina Ober	Avery	04- 01- 2020	2(112	
	3	Office Supplies	Naperville	United States	Phillina Ober	SAFCO	04- 01- 2020	2(112	
	4	Office Supplies	Philadelphia	United States	Mick Brown	Avery	05- 01- 2020	2(141	
	•••								
	10189	Office Supplies	New York City	United States	Patrick O'Donnell	Wilson Jones	30- 12- 2023	2(143	
	10190	Office Supplies	Fairfield	United States	Erica Bern	GBC	30- 12- 2023	2(115	
	10191	Office Supplies	Loveland	United States	Jill Matthias	Other	30- 12- 2023	2(156	
	10192	Technology	New York City	United States	Patrick O'Donnell	Other	30- 12- 2023	2(143	
	10193	Office Supplies	Charlottetown	Canada	Harry Olson	Wilson Jones	30- 12- 2023	2(143	
1	10194 rows × 19 columns								

```
Out[44]: (10194, 19)
In [46]: store.columns
Out[46]: 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 [48]: len(store.columns)
Out[48]: 19
In [50]: store.isnull()
                                                                                Order Order
Out[50]:
                                                      Customer
                                                                                                Posta
                   Category City Country/Region
                                                                 Manufacturer
                                                         Name
                                                                                                 Code
                                                                                  Date
                                                                                           ID
               0
                       False False
                                               False
                                                           False
                                                                          False
                                                                                  False
                                                                                         False
                                                                                                 Fals€
                       False False
                                               False
                                                           False
                                                                          False
                                                                                  False
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               2
                       False False
                                               False
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                       False False
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               4
                       False False
                                               False
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           10189
                       False False
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           10190
                       False False
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           10191
                       False False
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           10192
                       False False
                                               False
                                                           False
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                                                                                         False
                                                                                                 Fals€
           10193
                       False False
                                               False
                                                           False
                                                                          False
                                                                                  False
                                                                                         False
                                                                                                 Fals€
          10194 rows × 19 columns
```

In [52]: store.isna()

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	Category	City	Country/Region	Customer Name	Manufacturer	Order Date	Order ID	Posta Code
	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	Fals€
	··							
1018	9 False	False	False	False	False	False	False	False
1019	0 False	False	False	False	False	False	False	False
1019	1 False	False	False	False	False	False	False	Fals€
1019	2 False	False	False	False	False	False	False	False
1019	3 False	False	False	False	False	False	False	False

In [54]: store.isnull().sum()

Out[54]: Category 0
City 0
Country/Region 0
Customer Name 0

Customer Name 0 Manufacturer 0 Order Date 0 Order ID Postal Code 0 Product Name 0 0 Region Segment 0 Ship Date 0 Ship Mode 0 State/Province 0 0 Sub-Category Discount 0 Profit 0 0 Quantity Sales 0 dtype: int64

In [56]: store.head()

Out[56]:	Category		City	City Country/Region		Manufacturer	Order Date	Order ID	Po C
	0	Office Supplies	Houston	United States	Darren Powers	Message Book	03- 01- 2020	US- 2020- 103800	77
	1	Office Supplies	Naperville	United States	Phillina Ober	GBC	04- 01- 2020	US- 2020- 112326	60
	2	Office Supplies	Naperville	United States	Phillina Ober	Avery	04- 01- 2020	US- 2020- 112326	60
	3	Office Supplies	Naperville	United States	Phillina Ober	SAFCO	04- 01- 2020	US- 2020- 112326	60
	4	Office Supplies	Philadelphia	United States	Mick Brown	Avery	05- 01- 2020	US- 2020- 141817	19
	4								
In [58]:	sto	ore.tail()							

Out[58]:		Cate	egory		City	Countr	y/Region	Customer Name	Manı	ufacture	Order Date	
	10189	,	Office pplies	New Yor	rk City	Uni	ted States	Patrick O'Donnell	Wils	son Jone:	30- s 12- 2023	2(
	10190	1	Office pplies	Fa	nirfield	Uni	ted States	Erica Bern		GBC	30- 12- 2023	20
	10191		Office pplies	Lov	eland/	Uni	ted States	Jill Matthias		Othe	30- r 12- 2023	2(
	10192	? Techn	ology	New Yor	rk City	Uni	ted States	Patrick O'Donnell		Othe	30- r 12- 2023	20
	10193		Office pplies	Charlotte	etown		Canada	Harry Olson	Wils	son Jone:	30- s 12- 2023	2(
	4											
In [60]:	store	.head(3	3)									•
In [60]: Out[60]:		.head(3		City Co	untry/l	Region	Customer Name	ivianutac	turer	Order Date	Order ID	Post Coc
	Ca					Region I States		Massaga				
	0 S	tegory Office		ston	United		Name Darren	Message		03- 01-	US- 2020-	Coc
	0 S	Office upplies Office	Hous	ston	United	l States	Darren Powers Phillina	Message	Book	03- 01- 2020	US- 2020- 103800 US- 2020-	7701

introduction to statistical in pandas

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Out	02	

	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 [65]: store.head()

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	Category	City	Country/Region	Customer Name	Manufacturer	Order Date	Order ID	Po C
0	Office Supplies	Houston	United States	Darren Powers	Message Book	03- 01- 2020	US- 2020- 103800	77
1	Office Supplies	Naperville	United States	Phillina Ober	GBC	04- 01- 2020	US- 2020- 112326	60
2	Office Supplies	Naperville	United States	Phillina Ober	Avery	04- 01- 2020	US- 2020- 112326	60
3	Office Supplies	Naperville	United States	Phillina Ober	SAFCO	04- 01- 2020	US- 2020- 112326	60
4	Office Supplies	Philadelphia	United States	Mick Brown	Avery	05- 01- 2020	US- 2020- 141817	19

In [67]: store.columns

Out[67]: 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')

```
store['Category']
In [69]:
Out[69]: 0
                   Office Supplies
                   Office Supplies
          2
                   Office Supplies
          3
                   Office Supplies
                   Office Supplies
                         . . .
                   Office Supplies
          10189
          10190 Office Supplies
          10191 Office Supplies
          10192
                         Technology
          10193
                   Office Supplies
          Name: Category, Length: 10194, dtype: object
          store['City']
In [71]:
Out[71]: 0
                          Houston
                       Naperville
          1
          2
                       Naperville
          3
                       Naperville
                     Philadelphia
          10189
                   New York City
          10190
                        Fairfield
          10191
                        Loveland
          10192
                   New York City
          10193
                   Charlottetown
          Name: City, Length: 10194, dtype: object
          store[['Category','City']]
Out[73]:
                      Category
                                         City
                 Office Supplies
                                     Houston
                 Office Supplies
                                    Naperville
                 Office Supplies
                                    Naperville
                 Office Supplies
                                    Naperville
                 Office Supplies
                                  Philadelphia
          10189
                 Office Supplies
                                 New York City
                 Office Supplies
                                      Fairfield
          10190
          10191
                 Office Supplies
                                     Loveland
                     Technology
          10192
                                 New York City
                 Office Supplies
                                Charlottetown
         10194 rows × 2 columns
In [77]:
          store[['Category','City','Customer Name']]
```

Out[77]:

	Category	City	Customer Name
0	Office Supplies	Houston	Darren Powers
1	Office Supplies	Naperville	Phillina Ober
2	Office Supplies	Naperville	Phillina Ober
3	Office Supplies	Naperville	Phillina Ober
4	Office Supplies	Philadelphia	Mick Brown
•••		•••	
10189	Office Supplies	New York City	Patrick O'Donnell
10190	Office Supplies	Fairfield	Erica Bern
10191	Office Supplies	Loveland	Jill Matthias
10192	Technology	New York City	Patrick O'Donnell
10193	Office Supplies	Charlottetown	Harry Olson

10194 rows × 3 columns

```
In [79]: store[['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']]
```

	Category	City	Country/Region	Customer Name	Manufacturer	Order Date	Oı
	Office Supplies	Houston	United States	Darren Powers	Message Book	03- 01- 2020	2(103
	1 Office Supplies	Naperville	United States	Phillina Ober	GBC	04- 01- 2020	2(112
	2 Office Supplies	Naperville	United States	Phillina Ober	Avery	04- 01- 2020	2(112
	3 Office Supplies	Naperville	United States	Phillina Ober	SAFCO	04- 01- 2020	2(112
	4 Office Supplies	Philadelphia	United States	Mick Brown	Avery	05- 01- 2020	2(141
	•••						
1018	Office Supplies	New York City	United States	Patrick O'Donnell	Wilson Jones	30- 12- 2023	2(143
1019	Office Supplies	Fairfield	United States	Erica Bern	GBC	30- 12- 2023	2(115
1019	Office Supplies	Loveland	United States	Jill Matthias	Other	30- 12- 2023	2(156
1019	22 Technology	New York City	United States	Patrick O'Donnell	Other	30- 12- 2023	2(143
1019	Office Supplies	Charlottetown	Canada	Harry Olson	Wilson Jones	30- 12- 2023	2(143

In [81]: store[['Discount', 'Profit', 'Quantity', 'Sales']]

Out[81]:		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

```
<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 [91]: store.columns
                   'Order Date', 'Order ID', 'Postal Code', 'Product Name', 'Region',
```

```
Out[91]: Index(['Category', 'City', 'Country/Region', 'Customer Name', 'Manufacturer',
                     'Segment', 'Ship Date', 'Ship Mode', 'State/Province', 'Sub-Category', 'Discount', 'Profit', 'Quantity', 'Sales'],
                    dtype='object')
```

```
In [89]: store_cat=store[['Category','City', 'Country/Region', 'Customer Name', 'Manufact
                'Order Date', 'Order ID', 'Postal Code', 'Product Name', 'Region',
                'Segment', 'Ship Date', 'Ship Mode', 'State/Province', 'Sub-Category']]
```

```
In [93]: store cat.info()
```

```
RangeIndex: 10194 entries, 0 to 10193
         Data columns (total 15 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
         dtypes: object(15)
         memory usage: 1.2+ MB
 In [99]: store_cat.columns
Out[99]: 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'],
                 dtype='object')
In [103...
          len(store cat.columns)
Out[103... 15
          store num=store[[ 'Discount', 'Profit', 'Quantity', 'Sales']]
In [107...
In [109...
          store_num.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
                       10194 non-null float64
          3
              Sales
         dtypes: float64(3), int64(1)
         memory usage: 318.7 KB
In [111... store_num.columns
Out[111... Index(['Discount', 'Profit', 'Quantity', 'Sales'], dtype='object')
          len(store_num.columns)
In [113...
Out[113... 4
```

<class 'pandas.core.frame.DataFrame'>

```
In [115...
            print(len(store.columns))
            print(len(store_cat.columns))
            print(len(store_num.columns))
          19
          15
          4
In [117...
            store_cat.describe()
Out[117...
                                                                                             Order
                                                                                                     Po
                                                         Customer
                                                                                     Order
                     Category
                                  City Country/Region
                                                                     Manufacturer
                                                             Name
                                                                                     Date
                                                                                                 ID
                                                                                                      C
             count
                        10194
                                10194
                                                  10194
                                                             10194
                                                                             10194
                                                                                     10194
                                                                                              10194
                                                                                                     10
            unique
                                  542
                                                               800
                                                                               183
                                                                                      1242
                                                                                              5111
                                                                                               US-
                                 New
                                                                                       05-
                        Office
                                                            William
                                                                                       09-
                                                                                              2023-
                                  York
                                           United States
                                                                             Other
                                                                                                     10
               top
                      Supplies
                                                             Brown
                                  City
                                                                                      2022
                                                                                            100111
               freq
                         6128
                                  915
                                                   9994
                                                                41
                                                                              1940
                                                                                        38
                                                                                                 14
In [119...
            store_num.describe()
Out[119...
                        Discount
                                          Profit
                                                                        Sales
                                                      Quantity
                   10194.000000
                                  10194.000000
                                                  10194.000000
                                                                10194.000000
```

0.155385 28.673417 3.791838 228.225854 mean 0.206249 232.465115 2.228317 619.906839 std 0.000000 -6599.978000 1.000000 0.444000 min 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

basic pandas introduction we are compleded

In [128...

store[::1]

	Category	City	Country/Region	Customer Name	Manufacturer	Order Date	Oı
0	Office Supplies	Houston	United States	Darren Powers	Message Book	03- 01- 2020	2(103
1	Office Supplies	Naperville	United States	Phillina Ober	GBC	04- 01- 2020	2(112
2	Office Supplies	Naperville	United States	Phillina Ober	Avery	04- 01- 2020	2(112
3	Office Supplies	Naperville	United States	Phillina Ober	SAFCO	04- 01- 2020	2(112
4	Office Supplies	Philadelphia	United States	Mick Brown	Avery	05- 01- 2020	2(141
10189	Office Supplies	New York City	United States	Patrick O'Donnell	Wilson Jones	30- 12- 2023	2(143
10190	Office Supplies	Fairfield	United States	Erica Bern	GBC	30- 12- 2023	2(115
10191	Office Supplies	Loveland	United States	Jill Matthias	Other	30- 12- 2023	2(15€
10192	Technology	New York City	United States	Patrick O'Donnell	Other	30- 12- 2023	2(143
10193	Office Supplies	Charlottetown	Canada	Harry Olson	Wilson Jones	30- 12- 2023	2(143
10194 r	ows × 19 colu	umns					

1

Out[130...

	Category	City	Country/Region	Customer Name	Manufacturer	Order Date	Oı
10193	Office Supplies	Charlottetown	Canada	Harry Olson	Wilson Jones	30- 12- 2023	2(143
10192	Technology	New York City	United States	Patrick O'Donnell	Other	30- 12- 2023	2(143
10191	Office Supplies	Loveland	United States	Jill Matthias	Other	30- 12- 2023	2(156
10190	Office Supplies	Fairfield	United States	Erica Bern	GBC	30- 12- 2023	2(115
10189	Office Supplies	New York City	United States	Patrick O'Donnell	Wilson Jones	30- 12- 2023	2(143
•••							
4	Office Supplies	Philadelphia	United States	Mick Brown	Avery	05- 01- 2020	2(141
3	Office Supplies	Naperville	United States	Phillina Ober	SAFCO	04- 01- 2020	2(112
2	Office Supplies	Naperville	United States	Phillina Ober	Avery	04- 01- 2020	2(112
1	Office Supplies	Naperville	United States	Phillina Ober	GBC	04- 01- 2020	2(112
0	Office Supplies	Houston	United States	Darren Powers	Message Book	03- 01- 2020	2(103

10194 rows × 19 columns

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	Category	City	Country/Region	Customer Name	Manufacturer	Order Date	Oı
10193	Office Supplies	Charlottetown	Canada	Harry Olson	Wilson Jones	30- 12- 2023	2(143
10192	Technology	New York City	United States	Patrick O'Donnell	Other	30- 12- 2023	2(143
10191	Office Supplies	Loveland	United States	Jill Matthias	Other	30- 12- 2023	2(15€
10190	Office Supplies	Fairfield	United States	Erica Bern	GBC	30- 12- 2023	2(115
10189	Office Supplies	New York City	United States	Patrick O'Donnell	Wilson Jones	30- 12- 2023	2(143
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Out[134	Category		City Country/Regi		Customer Name Manufacture		Order Date	Order ID	Po C
	4	Office Supplies	Philadelphia	United States	Mick Brown	Avery	05- 01- 2020	US- 2020- 141817	19
	3	Office Supplies	Naperville	United States	Phillina Ober	SAFCO	04- 01- 2020	US- 2020- 112326	60
	2	Office Supplies	Naperville	United States	Phillina Ober	Avery	04- 01- 2020	US- 2020- 112326	60
	1	Office Supplies	Naperville	United States	Phillina Ober	GBC	04- 01- 2020	US- 2020- 112326	60
	0	Office Supplies	Houston	United States	Darren Powers	Message Book	03- 01- 2020	US- 2020- 103800	77
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