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```
#1.Display a csv file
import pandas as pd
df=pd.read_csv(r"/content/fruits.csv")
display(df)
```

	Fruit	RetailPrice	Yield	CupEquivalentSize	CupEquivalentPrice	
0	Apples	1.5193	0.90	0.2425	0.4094	
1	Apples, applesauce	1.0660	1.00	0.5401	0.5758	
2	Apples, ready-to-drink	0.7804	1.00	8.0000	0.3902	
3	Apples, frozen concentrate	0.5853	1.00	8.0000	0.2926	
4	Apricots	2.9665	0.93	0.3638	1.1603	
5	Apricots, packed in juice	1.6905	1.00	0.5401	0.9131	
6	Apricots, packed in syrup or water	2.0600	0.65	0.4409	1.3974	
7	Apricots	6.6188	1.00	0.1433	0.9485	
8	Bananas	NaN	0.64	0.3307	0.2712	
9	Berries, mixed	3.5585	1.00	0.3307	1.1768	
10	Blackberries	6.0172	0.96	0.3197	2.0037	
11	Blackberries	3.6362	1.00	0.3307	1.2025	
12	Blueberries	4.1739	0.95	0.3197	1.4045	
13	Blueberries	3.3898	1.00	0.3307	1.1210	
14	Cantaloupe	0.5767	0.51	0.3748	0.4238	
15	Cherries	3.4269	0.92	0.3417	1.2729	
16	Cherries, packed in syrup or water	4.5257	0.65	0.4409	3.0700	
17	Clementines	1.3847	0.77	0.4630	0.8326	
18	Cranberries	4.6513	1.00	0.1232	0.5729	
19	Dates	5.5713	1.00	0.1653	0.9212	
20	Figs	6.8371	0.96	0.1653	1.1776	
21	Fruit cocktail, packed in juice	1.7198	1.00	0.5401	0.9289	
22	Fruit cocktail, packed in syrup or water	1.5932	0.65	0.4409	1.0808	
23	Grapefruit	1.1695	0.49	0.4630	1.1050	
24	Grapefruit, ready-to-drink	1.0415	1.00	8.0000	0.5208	
25	Grapes	1.8398	0.96	0.3307	0.6338	
26	Grapes (raisins)	3.7801	1.00	0.1653	0.6250	
27	Grapes, ready-to-drink	0.9215	NaN	8.0000	0.4607	
28	Grapes, frozen concentrate	0.7119	1.00	8.0000	0.3559	
29	Honeydew	0.9056	0.46	0.3748	0.7378	
30	Kiwi	2.1849	0.76	0.3858	1.1091	
31	Mangoes	1.1513	0.71	0.3638	0.5898	
32	Mangoes	10.5527	1.00	0.1253	1.3219	
33	Nectarines	1.9062	0.91	0.3197	0.6696	
34	Oranges	1.2131	0.68	0.4079	0.7276	
35	Oranges, ready-to-drink	0.9842	1.00	8.0000	0.4921	

36	Oranges, frozen concentrate	0.7690	1.00	8.0000	0.3845
37	Papaya	1.2904	0.62	NaN	0.6424
38	Papaya	5.5089	1.00	0.1543	0.8502
39	Peaches	1.7167	0.96	0.3417	0.6111
40	Peaches, packed in juice	2.0237	1.00	0.5401	1.0931
41	Peaches, packed in syrup or water	1.8117	0.65	0.4409	1.2290
42	Peaches	3.3867	1.00	0.3307	NaN
43	Pears	1.5865	0.90	0.3638	0.6412
44	Pears, packed in juice	1.9546	1.00	0.5401	1.0557
45	Pears, packed in syrup or water	1.8970	0.65	0.4409	1.2868
46	Pineapple	0.5685	0.51	0.3638	0.4055
47	Pineapple, packed in juice	1.4344	1.00	0.5401	0.7748
48	Pineapple, packed in syrup or water	1.4067	0.65	0.4409	0.9543
49	Pineapple	6.6492	1.00	0.1543	1.0261
50	Pineapple, ready-to-drink	1.0288	1.00	8.0000	0.5144
51	Pineapple, frozen concentrate	0.6973	1.00	8.0000	0.3486
52	Plum	2.0292	0.94	0.3638	0.7852
53	Plum (prunes)	5.7042	1.00	0.1874	1.0689
54	Plum (prune), ready-to-drink	1.5522	1.00	8.0000	0.7761
55	Pomegranate	2.2350	0.56	0.3417	1.3638
56	Pomegranate, ready-to-drink	3.1220	1.00	8.0000	1.5610
57	Raspberries	6.6391	0.96	0.3197	2.2107
58	Raspberries	4.1877	1.00	0.3307	1.3849
59	Strawberries	2.5800	0.94	0.3197	0.8774
60	Strawberries	2.8189	1.00	0.3307	0.9322
61	Watermelon	0.3604	0.52	0.3307	0.2292

#2.Display top 10 entries from file

```
import pandas as pd
```

```
df=pd.read_csv(r"/content/fruits.csv")
```

```
print(df.head(10))
```

	Fruit	RetailPrice	Yield	CupEquivalentSize \
0	Apples	1.5193	0.90	0.2425
1	Apples, applesauce	1.0660	1.00	0.5401
2	Apples, ready-to-drink	0.7804	1.00	8.0000
3	Apples, frozen concentrate	0.5853	1.00	8.0000
4	Apricots	2.9665	0.93	0.3638
5	Apricots, packed in juice	1.6905	1.00	0.5401
6	Apricots, packed in syrup or water	2.0600	0.65	0.4409
7	Apricots	6.6188	1.00	0.1433
8	Bananas	NaN	0.64	0.3307
9	Berries, mixed	3.5585	1.00	0.3307

#3.Display 10 entries from bottom of file

```
import pandas as pd
```

```
df=pd.read_csv(r"/content/fruits.csv")
```

```
print(df.tail(10))
```

	Fruit	RetailPrice	Yield	CupEquivalentSize \	
52	Plum	2.0292	0.94	0.3638	
53	Plum (prunes)	5.7042	1.00	0.1874	
54	Plum (prune), ready-to-drink	1.5522	1.00	8.0000	
55	Pomegranate	2.2350	0.56	0.3417	
56	Pomegranate, ready-to-drink	3.1220	1.00	8.0000	
57	Raspberries	6.6391	0.96	0.3197	
58	Raspberries	4.1877	1.00	0.3307	
59	Strawberries	2.5800	0.94	0.3197	
60	Strawberries	2.8189	1.00	0.3307	
61	Watermelon	0.3604	0.52	0.3307	

#4.Print mean of any columns seperately ?

```
import pandas as pd
df=pd.read_csv(r"/content/fruits.csv")
df["RetailPrice"].mean()
```

2.6503311475409848

#5.Print median of any columns seperately ?

```
import pandas as pd
df=pd.read_csv(r"/content/fruits.csv")
df["Yield"].median()
```

0.96

#6.Print median of any columns seperately ?

```
import pandas as pd
df=pd.read_csv(r"/content/fruits.csv")
df["CupEquivalentSize"].mode()
```

0 8.0

Name: CupEquivalentSize, dtype: float64

#7.Print standard deviation of any columns seperately ?

```
import pandas as pd
df=pd.read_csv(r"/content/fruits.csv")
df["CupEquivalentPrice"].std()
```

0.4953576130632012

#8.print a column in ascending order

```
import pandas as pd
df=pd.read_csv(r"/content/fruits.csv")
df.sort_values(by=["RetailPrice"])
```

Fruit	RetailPrice	Yield	CupEquivalentSize	CupEquivalentPrice
-------	-------------	-------	-------------------	--------------------

```

61    Watermelon    0.3604 0.52    0.3307 0.2292
46    Pineapple    0.5685 0.51    0.3638 0.4055
14    Cantaloupe   0.5767 0.51    0.3748 0.4238
3     Apples, frozen concentrate 0.5853 1.00    8.0000 0.2926
51    Pineapple, frozen concentrate 0.6973 1.00    8.0000 0.3486
...
57    Raspberries  6.6391 0.96    0.3197 2.2107
49    Pineapple    6.6492 1.00    0.1543 1.0261
20    Figs         6.8371 0.96    0.1653 1.1776
32    Mangoes      10.5527      1.00    0.1253 1.3219
8     Bananas      NaN    0.64    0.3307 0.2712
62 rows × 5 columns

```

```

#9.print a column in desending order
import pandas as pd
df=pd.read_csv(r"/content/fruits.csv")
df.sort_values(by=['RetailPrice'],ascending=False)

```

```

Fruit  RetailPrice  Yield  CupEquivalentSize  CupEquivalentPrice
32    Mangoes      10.5527      1.00    0.1253 1.3219
20    Figs         6.8371 0.96    0.1653 1.1776
49    Pineapple    6.6492 1.00    0.1543 1.0261
57    Raspberries  6.6391 0.96    0.3197 2.2107
7     Apricots      6.6188 1.00    0.1433 0.9485
...
3     Apples, frozen concentrate 0.5853 1.00    8.0000 0.2926
14    Cantaloupe   0.5767 0.51    0.3748 0.4238
46    Pineapple    0.5685 0.51    0.3638 0.4055
61    Watermelon   0.3604 0.52    0.3307 0.2292
8     Bananas      NaN    0.64    0.3307 0.2712
62 rows × 5 columns

```

```

#10.Convert to list
import pandas as pd
df=pd.read_csv(r"/content/fruits.csv")
print(df["RetailPrice"].to_list())

```

```

[1.5193, 1.066, 0.7804, 0.5853, 2.9665, 1.6905, 2.06, 6.6188, nan, 3.5585, 6.0172, 3.6362,
4.1739, 3.3898, 0.5767, 3.4269, 4.5257, 1.3847, 4.6513, 5.5713, 6.8371, 1.7198, 1.5932,
1.1695, 1.0415, 1.8398, 3.7801, 0.9215, 0.7119, 0.9056, 2.1849, 1.1513, 10.5527, 1.9062,
1.2131, 0.9842, 0.769, 1.2904, 5.5089, 1.7167, 2.0237, 1.8117, 3.3867, 1.5865, 1.9546,
1.897, 0.5685, 1.4344, 1.4067, 6.6492, 1.0288, 0.6973, 2.0292, 5.7042, 1.5522, 2.235,
3.122, 6.6391, 4.1877, 2.58, 2.8189, 0.3604]

```

```

#11.Print the dataset without any Nan value
import pandas as pd
df=pd.read_csv(r"/content/fruits.csv")
print(df.dropna())

```

	Fruit	RetailPrice	Yield \
0	Apples	1.5193	0.90
1	Apples, applesauce	1.0660	1.00
2	Apples, ready-to-drink	0.7804	1.00
3	Apples, frozen concentrate	0.5853	1.00
4	Apricots	2.9665	0.93
5	Apricots, packed in juice	1.6905	1.00
6	Apricots, packed in syrup or water	2.0600	0.65
7	Apricots	6.6188	1.00
9	Berries, mixed	3.5585	1.00
10	Blackberries	6.0172	0.96
11	Blackberries	3.6362	1.00
12	Blueberries	4.1739	0.95
13	Blueberries	3.3898	1.00
14	Cantaloupe	0.5767	0.51
15	Cherries	3.4269	0.92
16	Cherries, packed in syrup or water	4.5257	0.65
17	Clementines	1.3847	0.77
18	Cranberries	4.6513	1.00
19	Dates	5.5713	1.00
20	Figs	6.8371	0.96
21	Fruit cocktail, packed in juice	1.7198	1.00
22	Fruit cocktail, packed in syrup or water	1.5932	0.65
23	Grapefruit	1.1695	0.49
24	Grapefruit, ready-to-drink	1.0415	1.00
25	Grapes	1.8398	0.96
26	Grapes (raisins)	3.7801	1.00
28	Grapes, frozen concentrate	0.7119	1.00
29	Honeydew	0.9056	0.46
30	Kiwi	2.1849	0.76
31	Mangoes	1.1513	0.71
32	Mangoes	10.5527	1.00
33	Nectarines	1.9062	0.91
34	Oranges	1.2131	0.68
35	Oranges, ready-to-drink	0.9842	1.00
36	Oranges, frozen concentrate	0.7690	1.00
38	Papaya	5.5089	1.00
39	Peaches	1.7167	0.96
40	Peaches, packed in juice	2.0237	1.00
41	Peaches, packed in syrup or water	1.8117	0.65
43	Pears	1.5865	0.90
44	Pears, packed in juice	1.9546	1.00
45	Pears, packed in syrup or water	1.8970	0.65
46	Pineapple	0.5685	0.51
47	Pineapple, packed in juice	1.4344	1.00
48	Pineapple, packed in syrup or water	1.4067	0.65
49	Pineapple	6.6492	1.00

50	Pineapple, ready-to-drink	1.0288	1.00
51	Pineapple, frozen concentrate	0.6973	1.00
52	Plum	2.0292	0.94
53	Plum (prunes)	5.7042	1.00
54	Plum (prune), ready-to-drink	1.5522	1.00
55	Pomegranate	2.2350	0.56
56	Pomegranate, ready-to-drink	3.1220	1.00
57	Raspberries	6.6391	0.96
58	Raspberries	4.1877	1.00
59	Strawberries	2.5800	0.94
60	Strawberries	2.8189	1.00
61	Watermelon	0.3604	0.52

	CupEquivalentSize	CupEquivalentPrice
0	0.2425	0.4094
1	0.5401	0.5758
2	8.0000	0.3902
3	8.0000	0.2926
4	0.3638	1.1603
5	0.5401	0.9131
6	0.4409	1.3974
7	0.1433	0.9485
9	0.3307	1.1768
10	0.3197	2.0037
11	0.3307	1.2025
12	0.3197	1.4045
13	0.3307	1.1210
14	0.3748	0.4238
15	0.3417	1.2729
16	0.4409	3.0700
17	0.4630	0.8326
18	0.1232	0.5729
19	0.1653	0.9212
20	0.1653	1.1776
21	0.5401	0.9289
22	0.4409	1.0808
23	0.4630	1.1050
24	8.0000	0.5208
25	0.3307	0.6338
26	0.1653	0.6250
28	8.0000	0.3559
29	0.3748	0.7378
30	0.3858	1.1091
31	0.3638	0.5898
32	0.1253	1.3219
33	0.3197	0.6696
34	0.4079	0.7276
35	8.0000	0.4921

36	8.0000	0.3845
38	0.1543	0.8502
39	0.3417	0.6111
40	0.5401	1.0931
41	0.4409	1.2290
43	0.3638	0.6412
44	0.5401	1.0557
45	0.4409	1.2868
46	0.3638	0.4055
47	0.5401	0.7748
48	0.4409	0.9543
49	0.1543	1.0261
50	8.0000	0.5144
51	8.0000	0.3486
52	0.3638	0.7852
53	0.1874	1.0689
54	8.0000	0.7761
55	0.3417	1.3638
56	8.0000	1.5610
57	0.3197	2.2107
58	0.3307	1.3849
59	0.3197	0.8774
60	0.3307	0.9322
61	0.3307	0.2292

```
#11.Print the dataset with Nan value to value 5
import pandas as pd
df=pd.read_csv(r"/content/fruits.csv")
print(df.fillna(5))
```

Fruit	RetailPrice	Yield	CupEquivalentSize \	
0	Apples	1.5193	0.90	0.2425
1	Apples, applesauce	1.0660	1.00	0.5401
2	Apples, ready-to-drink	0.7804	1.00	8.0000
3	Apples, frozen concentrate	0.5853	1.00	8.0000
4	Apricots	2.9665	0.93	0.3638
..
57	Raspberries	6.6391	0.96	0.3197
58	Raspberries	4.1877	1.00	0.3307
59	Strawberries	2.5800	0.94	0.3197
60	Strawberries	2.8189	1.00	0.3307
61	Watermelon	0.3604	0.52	0.3307

	CupEquivalentPrice
0	0.4094
1	0.5758
2	0.3902
3	0.2926

```

4          1.1603
..         ...
57         2.2107
58         1.3849
59         0.8774
60         0.9322
61         0.2292

```

[62 rows x 5 columns]

#12.print all the info of file

```
import pandas as pd
```

```
df=pd.read_csv(r"/content/fruits.csv")
```

```
print(df.info())
```

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

```
RangeIndex: 62 entries, 0 to 61
```

```
Data columns (total 5 columns):
```

```
#   Column          Non-Null Count  Dtype
---

```

```

0  Fruit          62 non-null   object
1  RetailPrice    61 non-null   float64
2  Yield          61 non-null   float64
3  CupEquivalentSize 61 non-null   float64
4  CupEquivalentPrice 61 non-null   float64

```

```
dtypes: float64(4), object(1)
```

```
memory usage: 2.5+ KB
```

```
None
```

#13.Print the retail prizes greater than 5

```
import pandas as pd
```

```
df=pd.read_csv(r"/content/fruits.csv")
```

```
print(df.loc[df["RetailPrice"]>10])
```

```
Fruit RetailPrice Yield CupEquivalentSize CupEquivalentPrice
```

```
32 Mangoes    10.5527    1.0      0.1253      1.3219
```

#14.Print count of the retail prizes greater than 5import pandas as pd

```
df=pd.read_csv(r"/content/fruits.csv")
```

```
print(len(df.loc[df["RetailPrice"]>10]))
```

```
1
```

#15.Print the sum of all retail prizes

```
import pandas as pd
```

```
df=pd.read_csv(r"/content/fruits.csv")
```

```
df["RetailPrice"].sum()
```


161.67020000000008