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1) Which was the best month for sales? How much was earned that month?

Input :

```
import pandas as pd
df=pd.read_csv("grainsales.csv")
bms=df.groupby("Months")["Sales"].sum().idxmax()
bmsal=df.groupby("Months")["Sales"].sum().max()
print("The best Month of the Sales is",bms,"sales amount is",bmsal)
```

Output :

```
    The best Month of the Sales is JULY sales amount is 16000000.
```

2) Which product sold the most?

Input :

```
mps=df.groupby("GrainName")["Sales"].sum().idxmax()
print(mps)
```

Output : Wheat

3) Which city sold the most products?

Input :

```
cps=df.groupby("City")["Sales"].sum().idxmax()
print(cps)
```

Output : Asansole

4) Find the product which are sold in 2022.

Input:

```
import pandas as pd
df=pd.read_csv("grainsales.csv")
print(df[df['Year']==2022])
```

Output :

	GrainName	State	City	Months	Year	Sales
1	Bajra	Panjab	Amritsar	FEB	2022	1500000
7	Sattu	Gujarat	Surat	APRIL	2022	2500000
13	Bajra	Panjab	Amritsar	FEB	2022	1500000
21	Brown rice	Telangana	Hyderabad	JUNE	2022	3500000
25	Brown rice	Telangana	Hyderabad	JUNE	2022	3500000

5) Find the product which are sold in 2023.

Input:

```
import pandas as pd
df=pd.read_csv("grainsales.csv")
print(df[df['Year']==2023])
```

Output :

```
     GrainName        State       City Months  Year    Sales
0          Ragi  Maharashtra     Nagpur    JAN  2023  1000000
2          Ragi  Maharashtra     Nagpur    JAN  2023  1000000
3         Bajra       Panjab   Amritsar    FEB  2023  1500000
4          Ragi  Maharashtra     Nagpur    JAN  2023  1000000
5         Bajra       Panjab   Amritsar    FEB  2023  1500000
6          Oats     Hariyana   Gurugram  MARCH  2023  2000000
8         Sooji   Tamil Nadu    Madurai    MAY  2023  3000000
9   Brown rice     Telangana  Hyderabad   JUNE  2023  3500000
10        Wheat  West Bengol   Asansole   JULY  2023  4000000
11         Corn           UP     Kanpur    AUG  2023  4500000
12         Ragi  Maharashtra     Nagpur    JAN  2023  1000000
14         Oats     Hariyana   Gurugram  MARCH  2023  2000000
15       Sattu       Gujarat      Surat  APRIL  2023  2500000
16        Sooji   Tamil Nadu    Madurai    MAY  2023  3000000
17  Brown rice     Telangana  Hyderabad   JUNE  2023  3500000
18        Wheat  West Bengol   Asansole   JULY  2023  4000000
19         Corn           UP     Kanpur    AUG  2023  4500000
20        Sooji   Tamil Nadu    Madurai    MAY  2023  3000000
22        Wheat  West Bengol   Asansole   JULY  2023  4000000
23         Corn           UP     Kanpur    AUG  2023  4500000
24         Ragi  Maharashtra     Nagpur    JAN  2023  1000000
26        Wheat  West Bengol   Asansole   JULY  2023  4000000
```

6) Find the product which are sold in 2023 and state is Maharashtra.

Input :

```
import pandas as pd
df=pd.read_csv("grainsales.csv")
print(df[(df['Year']==2023) & (df['State']=='Maharashtra')])
```

Output :

```
   GrainName        State    City Months  Year    Sales
0       Ragi  Maharashtra  Nagpur    JAN  2023  1000000
2       Ragi  Maharashtra  Nagpur    JAN  2023  1000000
4       Ragi  Maharashtra  Nagpur    JAN  2023  1000000
12      Ragi  Maharashtra  Nagpur    JAN  2023  1000000
24      Ragi  Maharashtra  Nagpur    JAN  2023  1000000
```

7) Find the product which are sold in 2022 and state is Maharashtra.

Input :

```
import pandas as pd
```

```
df=pd.read_csv("grainsales.csv")
print(df[(df['Year']==2022) & (df['State']=='Maharashtra')])
```

Output :

```
Empty DataFrame
Columns: [GrainName, State, City, Months, Year, Sales]
Index: []
```

8) Find the product which are sold state is Gujarat.

Input :

```
import pandas as pd
df=pd.read_csv("grainsales.csv")
print(df[df['State']=='Gujarat'])
```

Output :

```
   GrainName    State   City Months  Year    Sales
7     Sattu   Gujarat  Surat  APRIL  2022  2500000
15    Sattu   Gujarat  Surat  APRIL  2023  2500000
```

9) Find the product which are sold inn year 2022 and state is Gujarat.

Input :

```
import pandas as pd
df=pd.read_csv("grainsales.csv")
print(df[(df['Year']==2022) & (df['State']=='Gujarat')])
```

Output :

```
  GrainName    State   City Months  Year    Sales
7    Sattu   Gujarat  Surat  APRIL  2022  2500000
```

10) Total sales of ragi.

Input :

```
import pandas as pd
df=pd.read_csv("grainsales.csv")
r1=df.groupby('GrainName')['Sales'].get_group('Ragi').sum()
print('Total sales of ragi:',r1)
```

Output :

```
Total sales of ragi:5000000
```

11) Which state sales the ragi most?

Input :

```
import pandas as pd
```

```
df=pd.read_csv("grainsales.csv")
r1=df.groupby('GrainName')['State'].get_group('Ragi').sum()
print('State which sales ragi most:',r1)
```

Output :

```
State which sales ragi most:  Maharashtra
```

12) Sales of corn in year 2023.

Input :

```
import pandas as pd
df=pd.read_csv("grainsales.csv")
print(df[(df['GrainName']=='Corn') & (df['Year']==2023)])
```

Output:

```
   GrainName State    City Months  Year    Sales
11      Corn    UP  Kanpur    AUG  2023  4500000
19      Corn    UP  Kanpur    AUG  2023  4500000
23      Corn    UP  Kanpur    AUG  2023  4500000
```

13) Total sales in year 2022.

Input :

```
import pandas as pd
df=pd.read_csv("grainsales.csv")
r1=df.groupby('Year')['Sales'].get_group(2022).sum()
print(r1)
```

Output :

```
12500000
```

14) Total sales of corn.

Input :

```
import pandas as pd
df=pd.read_csv("grainsales.csv")
r1=df.groupby('GrainName')['Sales'].get_group('Corn').sum()
print('Total sales of corn:',r1)
```

Output :

```
Total sales of corn: 13500000
```

15) Total sales in JAN.

Input :

```
import pandas as pd
df=pd.read_csv("grainsales.csv")
```

```
r1=df.groupby('Months')['Sales'].get_group('JAN').sum()
print('Total sales in JAN:',r1)
```

Output :

```
Total sales in JAN: 5000000
```

16) Total sales of Bajra.

Input :

```
import pandas as pd
df=pd.read_csv("grainsales.csv")
r1=df.groupby('GrainName')['Sales'].get_group('Bajra').max()
print('Total sales of Bajra:',r1)
```

Output :

```
Total sales of Bajra: 1500000
```

17) Grain which sale in april.

Input :

```
import pandas as pd
df=pd.read_csv("grainsales.csv")
r1=df.groupby('Months')['GrainName'].get_group('APRIL')
print(r1)
```

Output :

```
7     Sattu
15    Sattu
```

18) The product sold in city madurai.

Input :

```
import pandas as pd
df=pd.read_csv("grainsales.csv")
print(df[df['City']=='Madurai'])
```

Output :

```
   GrainName       State     City Months  Year    Sales
8      Sooji  Tamil Nadu  Madurai    MAY  2023  3000000
16     Sooji  Tamil Nadu  Madurai    MAY  2023  3000000
20     Sooji  Tamil Nadu  Madurai    MAY  2023  3000000
```

19) Grain which sale in AUG.

Input :

```
import pandas as pd
df=pd.read_csv("grainsales.csv")
r1=df.groupby('Months')['GrainName'].get_group('AUG')
print(r1)
```

Output :

```
11    Corn
19    Corn
23    Corn
```

20) Grain which sale in JUNE.

Input :

```
import pandas as pd
df=pd.read_csv("grainsales.csv")
r1=df.groupby('Months')['GrainName'].get_group('JUNE')
print(r1)
```

Output :

```
9     Brown rice
17    Brown rice
21    Brown rice
25    Brown rice
```