

Practical No. 4

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Batch: **H1**

Roll No: **819**

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Q. Read any real-life dataset. Store the data in Data Frames. Identify 10 grains for the given dataset. Implement all 20 grains using Pandas methods. The Sample Grains for the Sales Dataset are as:

1. Which was the best month for sales? How much was earned that month?
2. Which product sold the most? Why do you think it did?
3. Which city sold the most products?
4. What Products are most often sold together?

Code

```
import pandas as pd
```

```
df=pd.read_csv("grainsales.csv", delimiter=".")
```

```
#Maximum sales in Month
```

```
month=df.groupby('Months')['Sales'].sum().idxmax()
```

```
print("\nMaximum sales are done in the month of: ",month)
```

```
sales=df.groupby('Months')['Sales'].sum().max() print("\nThe earning made in that month is:  
".sales)
```

```
#Product which sold the most and by whom
```

```
max_sales=df.groupby("GrainName")['Sales'].sum().idxmax()
```

```
print("\nThe product who sold the most is: ",max_sales)
```

```
#City which sold the most products
```

```
city=df.groupby('City')['Sales'].sum().idxmax()
```

```
print("\nThe city which sold the most products: ",city)
```

```
#Minimum sales done in the month
```


```
min_sales=df.groupby('Months')['Sales'].sum().idxmin()
```

```
print("\nMinimum sales are done in the month: ",min_sales)
```

```
#Mean of all the sales mean=df['Sales'].mean() print("\nMean
```

```
of all the sales is: ",mean)
```

OUTPUT

 *IDLE Shell 3.11.4*

File Edit Shell Debug Options Window Help

Python 3.11.4 (tags/v3.11.4:d2340ef, Jun 7 2023, 05:45:37) [MSC v.1934 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.

>>>

= RESTART: C:/Users/Admin/Desktop/eds/eds.py

Maximum sales are done in the month of: JULY

The earning made in that month is: 16000000

The product who sold the most is: Wheat

The city which sold the most products: Asansole

Minimum sales are done in the month: MARCH

Mean of all the sales is: 2685185.185185185