

Practical No. 4

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Batch: H1

Roll No:811

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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)
```

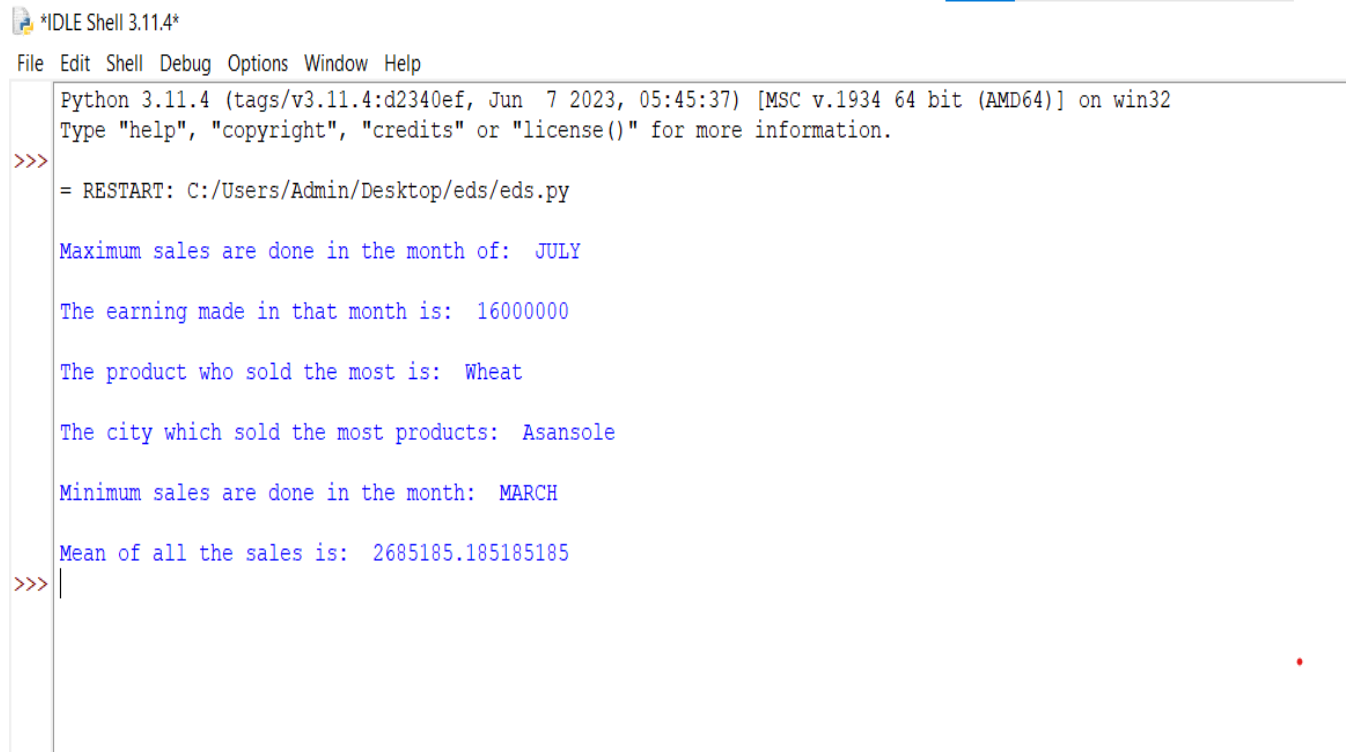
```
#Minimum sales done in the month
```

```
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:



The screenshot shows an IDLE Shell window titled "*IDLE Shell 3.11.4*". The menu bar includes File, Edit, Shell, Debug, Options, Window, and Help. The shell displays the following text:

```
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
>>> |
```

A small red dot is visible on the right side of the window.