

Name-Srushti Ghadge

Roll no-861

PRN-202201090125

Batch-H3

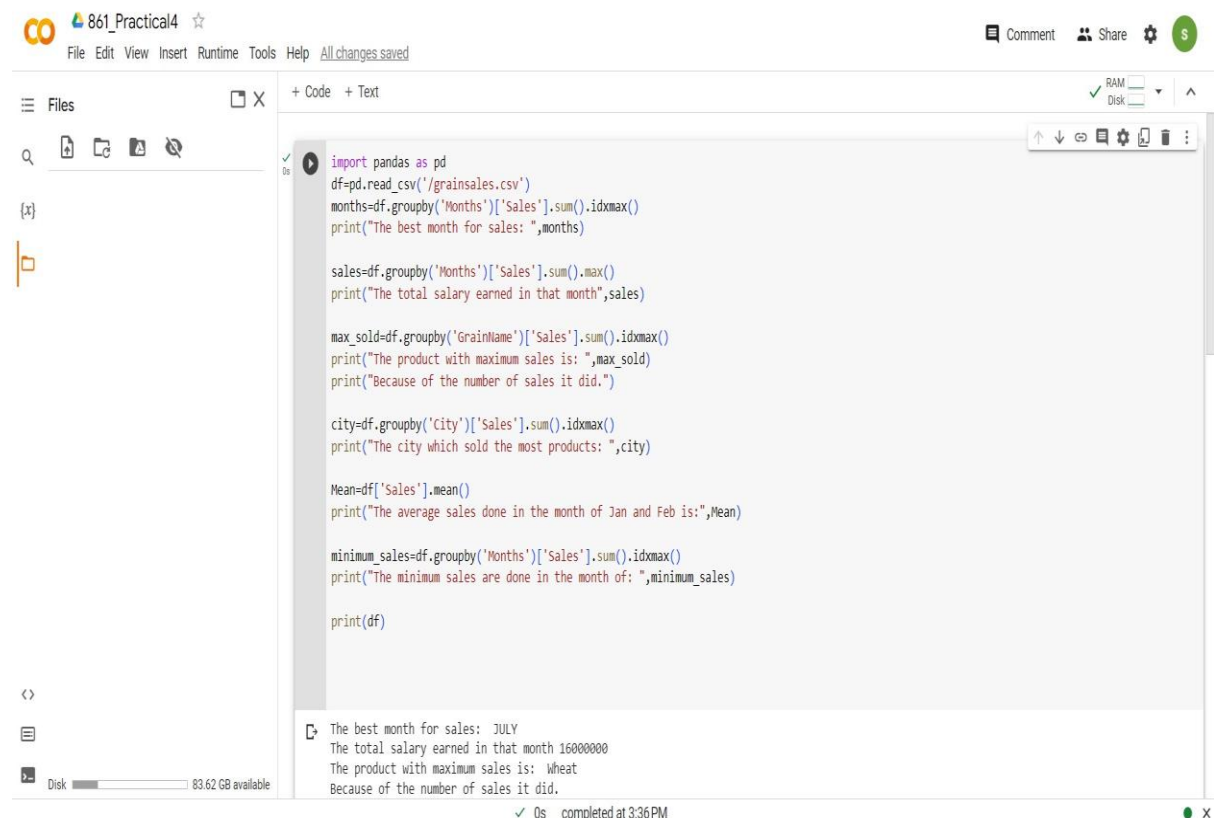
Practical No 4: (Graded Assignment)

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?

The code:



```
import pandas as pd
df=pd.read_csv('/grainsales.csv')
months=df.groupby('Months')['Sales'].sum().idxmax()
print("The best month for sales: ",months)

sales=df.groupby('Months')['Sales'].sum().max()
print("The total salary earned in that month",sales)

max_sold=df.groupby('GrainName')['Sales'].sum().idxmax()
print("The product with maximum sales is: ",max_sold)
print("Because of the number of sales it did.")

city=df.groupby('City')['Sales'].sum().idxmax()
print("The city which sold the most products: ",city)

Mean=df['Sales'].mean()
print("The average sales done in the month of Jan and Feb is:",Mean)

minimum_sales=df.groupby('Months')['Sales'].sum().idxmax()
print("The minimum sales are done in the month of: ",minimum_sales)

print(df)
```

The best month for sales: JULY
The total salary earned in that month 16000000
The product with maximum sales is: Wheat
Because of the number of sales it did.

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The output:

The best month for sales: JULY
The total salary earned in that month 16000000
The product with maximum sales is: wheat
Because of the number of sales it did.
The city which sold the most products: Asansole
The average sales done in the month of Jan and Feb is: 2685185.185185185
The minimum sales are done in the month of: JULY

	GrainName	State	City	Months	Year	Sales
0	Ragi	Maharashtra	Nagpur	JAN	2023	1000000
1	Bajra	Panjab	Amritsar	FEB	2023	1500000
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
7	Sattu	Gujarat	Surat	APRIL	2023	2500000
8	Sooji	Tamil Nadu	Madurai	MAY	2023	3000000
9	Brown rice	Telangana	Hyderabad	JUNE	2023	3500000
10	Wheat	West Bengal	Asansole	JULY	2023	4000000
11	Corn	UP	Kanpur	AUG	2023	4500000
12	Ragi	Maharashtra	Nagpur	JAN	2023	1000000
13	Bajra	Panjab	Amritsar	FEB	2023	1500000
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 Bengal	Asansole	JULY	2023	4000000
19	Corn	UP	Kanpur	AUG	2023	4500000
20	Sooji	Tamil Nadu	Madurai	MAY	2023	3000000
21	Brown rice	Telangana	Hyderabad	JUNE	2023	3500000
22	Wheat	West Bengal	Asansole	JULY	2023	4000000
23	Corn	UP	Kanpur	AUG	2023	4500000
24	Ragi	Maharashtra	Nagpur	JAN	2023	1000000
25	Brown rice	Telangana	Hyderabad	JUNE	2023	3500000
26	Wheat	West Bengal	Asansole	JULY	2023	4000000

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