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PRN: 202401110045

Subject: Essentials of Data Science

Assignment:

Make Up Session Assignment for Theory

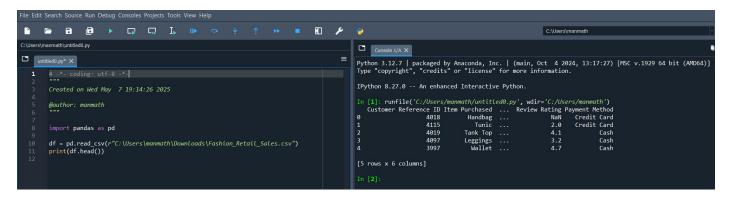
1. Take one real dataset. Find any 10 grains for the given dataset. Find solutions using pandas.

Data set link(Kaggle): https://www.kaggle.com/datasets/atharvasoundankar/fashion-retail-sales

Data set: fashion retail sales

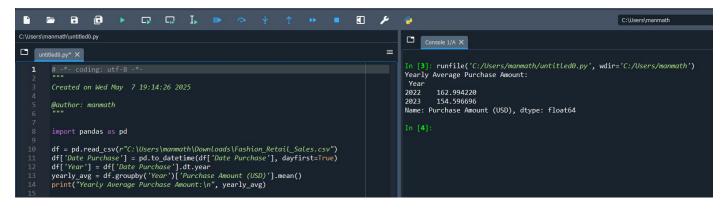
	Α	В	C	D	E	F	G	Н	1
1	Customer Reference ID	Item Purchased	Purchase Amount (USD)	Date Purchase	Review Rating	Payment Method			
2	4018	Handbag	4619	05-02-2023		Credit Card			
3	4115	Tunic	2456	11-07-2023	2	Credit Card			
4	4019	Tank Top	2102	23-03-2023	4.1	Cash			
5	4097	Leggings	3126	15-03-2023	3.2	Cash			
6	3997	Wallet	3003	27-11-2022	4.7	Cash			
7	4080	Onesie	2914	11-12-2022	4.5	Credit Card			
8	4055	Jacket	257 1	08-07-2023	1.3	Cash			
9	3973	Trousers	2419	10-11-2022	4.6	Cash			
10	4044	Jeans	4771	19-05-2023	4.1	Cash			
11	4010	Loafers	4233	11-06-2023		Credit Card			
12	4108	Slippers	2356	19-03-2023	4.8	Credit Card			
13	4067	Bowtie	4418	21-11-2022	3.4	Cash			
14	4068	Pajamas	3728	09-12-2022		Credit Card			
15	4102	Trench Coat	2130	29-01-2023	4.8	Cash			
16	4044	Handbag	2122	01-08-2023	1.2	Credit Card			
17	4096	Poncho	2383	10-04-2023		Credit Card			
18	4017	Gloves	2895	17-07-2023	3.6	Credit Card			
19	4001	Trench Coat	2952	13-06-2023	2.2	Cash			
20	3976	Slippers	4069	18-06-2023	4.9	Credit Card			
21	4103	Romper	4465	21-11-2022		Credit Card			
22	4081	T-shirt	2108	25-03-2023		Cash			
23	3986	Gloves	4298	05-04-2023	4.2	Cash			
24	4108	Jeans	2814	11-02-2023	4.4	Credit Card			
25	4109	Flip-Flops	4932	20-12-2022	4	Credit Card			
26	4075	Tunic	4661	12-04-2023	1.2	Credit Card			
27	4040	Shorts	4872	25-08-2023	3.8	Cash			
28	4099	Blazer	4232	25-10-2022	2.7	Credit Card			

Reading the dataset and displaying first 5 rows for verification.

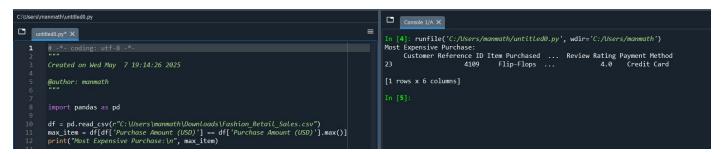


GRAINS:

1. Average Purchase Amount Per Year?



2. Display the details of Most Expensive Item Purchased?



3. How many purchases were made with each payment method?

```
C:\Users\manmath\unttitled0.py

import pandas as pd

off = pd.read_csv(r"C:\Users\manmath\Unttitled0.y", payment_counts)

payment_counts = df['payment Method Counts:\n", payment_counts)

c:\Users\manmath\unttitled0.py

c:\Users\manmath\unttitled0.py

import pandas as pd

off = pd.read_csv(r"C:\Users\manmath\Unttitled0.py', wdir='C:\Users\manmath\unttitled0.py', wdir='C:\Users\manmath')

payment_counts = df['payment Method Counts:\n", payment_counts)

c:\Users\manmath\unttitled0.py', wdir='C:\Users\manmath\unttitled0.py', wdir='C:\Users\manmath')

Payment Method Counts:

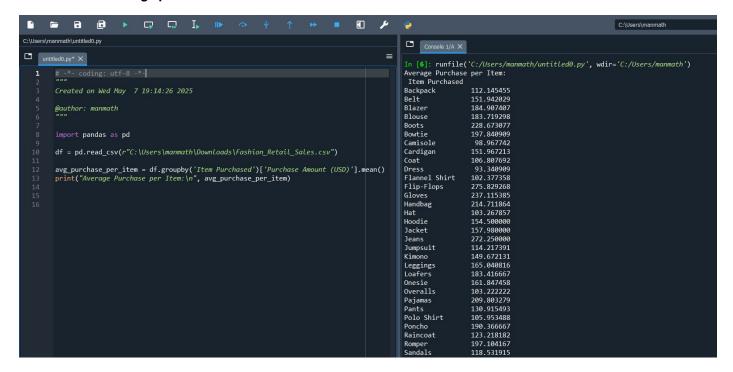
Payment Method Counts:

Payment Method Counts:

In [6]:

In [6]:
```

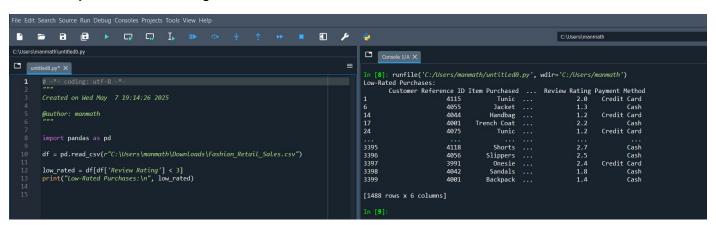
4. What is the average purchase amount for each item?



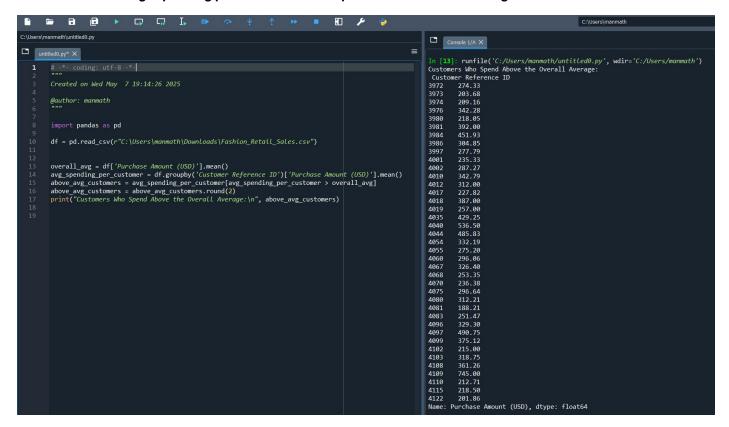
5. Count how many purchases happened in each year.



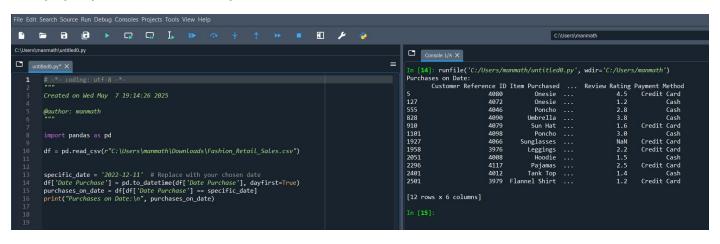
6. Show all purchases with rating less than 3.



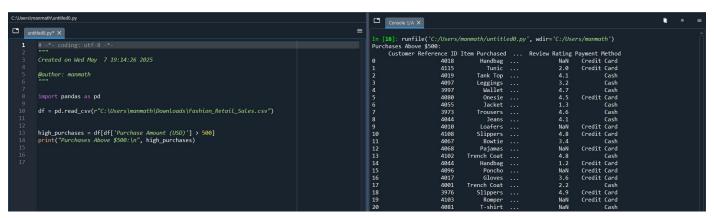
7. What is the average spending per customers who spends above overall average?



8. Display all purchases made on a specific date.



9. Show all purchases above \$500.



10. How many high-value purchases (above average amount) are made per item?

