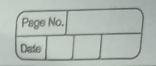


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Q2 Describe the difference between np. dot () & Ap. matmul () in numpy when would you use each function -> pp. dot () function np. matmul () tunction 1) The PP. dot () Function 1) The np mot mut () perform the dot product Function explicitly performs of two arrays matrix multiplication @ For I-D arrays it perform @ It does not perform inner product of vectors for elementuise multiplication 2-D arrays it performs like pp dot() docs matrix multiplications For 20 arrays. 3 For N-dimensional array 3 It can handle higher its a sum product over the dimensional arrays as last axis of the second well but behaviour is 11 ormay. different compared to code: import numpy asnp np. dot () a = DP. array ([1:2,3]) code:- impost numpy anp b= np, array ([4,5,6]) A= pp. array (E[1,2], dot. product = np. dot (0, b) [3,4]] A = Dp. array ([[1,2], B= np. array (1[5,6] [78] B= np. array [[[\$5,6]. matrix product = np. matmut [7,8]] matrix product = np. dot AB

@.3)

-) a) To display the first 5 you of DataFrame sales. Dota you can use the head () method impost pandas as pd.



b) To check the display the data types of each column in the DataFrame 'sales-data' you can use the Info () method.

print (sales-data, info ()).

0,4

To calculate the total sales amount foreach transaction by adding a new column 'Total-sales' you can simply multiply the Quantity sold column by hypothetical price-per-unit column & design the result to the new column 'Total-sales'. Assuming price-per-unit is also a column in the Dataframe.

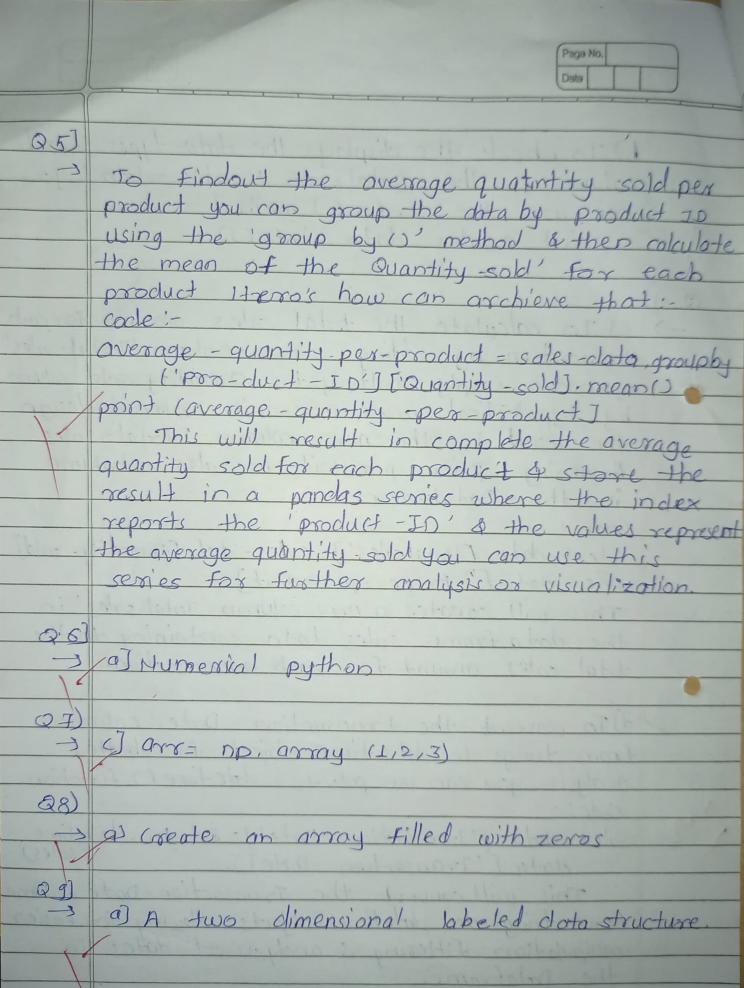
Code :-

sales - data ['Total sales']= sales - data [Quantity-sold]
sales - data ['Price - per - unit]
This will create a new column 'Total sales' in
the data frame sales data containing to the
total sales amount for each atransaction.

To convert the transaction - Date column from strings to data time objects for better analysis, you can use pd. to = datatione () function Code:

Sales - data ['Transaction - Date'] = Pd, to -datetime (sales)

This will convert the Transaction-Date column from drings to datetime objects allowing for easier manipulation, filtering & analysis of dates in the Dataframe.



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010	c) df ['column - name']
	L'ESCHIE
QII	
->	b] Students - data ['Age']
Q 12	
7	1 Color 1 1 5 50 1 17 and 1 1 5 50 11 11 11 11 11 11 11 11 11 11 11 11 11
7	al Sales - data ['Price'] sales - data ['auntity-sold']
(013]	
-	a) Harumpy is primarily used for data manipulation
	& mathematical operations on homogeneous arrays.
1	while pandas produides high level dota structures
	& function to manipulate & onalyze structure dota like Data frames
	aura net surres
24	
-	a] df. iloc [:3]
्र । डो	
Q 15	a) Drops all rows with missing values.
1	as peops an ions committee wines.
24/00	
1	a) df. sort - values ('column - name')
1,7	
0.16	a) df, apply ()
087	b) Returns the largest in values in a specific
3,70	column.

	Page No.	_ '
	Data	
Q19]	Towns and It so	Lig
	ed df. to = csv ('output csv')	1- 4
	In scholard - etalo / march	(11.9)
(2,20]		4
->	b) converts a column to database forms	1010
11/	al sile data libraci perecitate la la la	£
Out.		
Q21]	at df. sillnas	1800
	a) df. filling () the said to be solded to	
	white produce in delegation but data about	
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	at traces all some letter missing where	
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	a) off. cost - water (column - rame)	2-1
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