Started on	Monday, 19 May 2025, 1:44 PM
State	Finished
Completed on	Monday, 19 May 2025, 4:18 PM
Time taken	2 hours 34 mins
Overdue	34 mins 8 secs
Grade	80.00 out of 100.00

Question **1**Not answered

Mark 0.00 out of 20.00

Create a pandas program to filter words that contain atleast 2 vowels from a series?

For example:

Input					Result
['Apple',	'Orange',	'Plan',	'Python',	'Money']	Apple Orange Money

1		
		1.

Question $\bf 2$

Correct

Mark 20.00 out of 20.00

Create a numpy program to find the sum of last column in a given numpy array.

For example:

Inp	ut											Re	su	lt	
[1,	2,	3,	4,	5,	6,	7,	8,	9,	10,	11,	12]	[[1	2	3]
												[4	5	6] 9]
												[7	8	9]
												[:	10	11	12]]
												30			

```
import numpy as np
a=eval(input())
a=np.array(a).reshape(4,3)
print(a)
b=a[:,-1]
c=np.sum(b)
print(c)
```

	Input	Expected	Got	
~	[1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12]	[4 5 6] [7 8 9]	[[1 2 3] [4 5 6] [7 8 9] [10 11 12]] 30	
~	[2,4,6,8,10,12,14,16,18,20,22,24]	[[2 4 6] [8 10 12] [14 16 18] [20 22 24]] 60		

Correct

Question $\bf 3$

Correct

Mark 20.00 out of 20.00

Write a Numpy program to Convert a 1-D array into a 2-D array with 3 rows **For example:**

Input	Result
[0, 1, 2, 3, 4, 5, 6, 7, 8] The original array: [0 1 2 3 4 5 6 7 8]	The original array: [0 1 2 3 4 5 6 7 8] 3 x 3 Array: [[0 1 2] [3 4 5] [6 7 8]]

```
import numpy as np
a=eval(input())
arr = np.array(a)
reshaped_arr = arr.reshape(3, -1)
print("The original array:")
print(",arr)
print("\n3 x 3 Array:")
print("",reshaped_arr)
```

	Input	Expected	Got	
~	[0, 1, 2, 3, 4, 5, 6, 7, 8] The original array: [0 1 2 3 4 5 6 7 8]	The original array: [0 1 2 3 4 5 6 7 8] 3 x 3 Array:	The original array: [0 1 2 3 4 5 6 7 8] 3 x 3 Array:	~
		[[0 1 2] [3 4 5] [6 7 8]]	[[0 1 2] [3 4 5] [6 7 8]]	
~	[11, 12, 13, 14, 15, 16, 17, 18, 19]	The original array: [11 12 13 14 15 16 17 18 19]	The original array: [11 12 13 14 15 16 17 18 19]	~
		3 x 3 Array: [[11 12 13] [14 15 16] [17 18 19]]	3 x 3 Array: [[11 12 13] [14 15 16] [17 18 19]]	

Correct

Question ${f 4}$

Correct

Mark 20.00 out of 20.00

Create a python program to create a student.csv file and read the content from the newly created file

For example:

Test	Input	Result
<pre>with open("studentsq.csv", 'r') as file: csvreader = csv.reader(file) header = next(csvreader) for row in csvreader: rows.append(row) print(header) print(rows)</pre>	<pre>[["SNo", "Name", "Subject"],[1, "Ash Ketchum", "English"],[2, "Gary Oak", "Mathematics"],[3, "Brock Lesner", "Physics"]]</pre>	<pre>['SNo', 'Name', 'Subject'] [['1', 'Ash Ketchum', 'English'], ['2', 'Gary Oak', 'Mathematics'], ['3', 'Brock Lesner', 'Physics']]</pre>

```
import csv
rows=[]
data = eval(input())
with open("studentsq.csv", "w", newline="") as csvfile:
    writer = csv.writer(csvfile)
    writer.writerows(data)
```

	Test	Input	Expected	Got	
~	<pre>with open("studentsq.csv", 'r') as file: csvreader = csv.reader(file) header = next(csvreader) for row in csvreader: rows.append(row) print(header) print(rows)</pre>	<pre>[["SNo", "Name", "Subject"],[1, "Ash Ketchum", "English"], [2, "Gary Oak", "Mathematics"],[3, "Brock Lesner", "Physics"]]</pre>	['SNo', 'Name', 'Subject'] [['1', 'Ash Ketchum', 'English'], ['2', 'Gary Oak', 'Mathematics'], ['3', 'Brock Lesner', 'Physics']]	['SNo', 'Name', 'Subject'] [['1', 'Ash Ketchum', 'English'], ['2', 'Gary Oak', 'Mathematics'], ['3', 'Brock Lesner', 'Physics']]	~
~	<pre>with open("studentsq.csv", 'r') as file: csvreader = csv.reader(file) header = next(csvreader) for row in csvreader: rows.append(row) print(header) print(rows)</pre>	[["SNo", "Name", "Subject"],[11, "Anto Ketchum", "DAA"],[21, "Geek Oak", "PYTHON"],[31, "John Lesner", "JAVA"]]	['SNo', 'Name', 'Subject'] [['11', 'Anto Ketchum', 'DAA'], ['21', 'Geek Oak', 'PYTHON'], ['31', 'John Lesner', 'JAVA']]	['SNo', 'Name', 'Subject'] [['11', 'Anto Ketchum', 'DAA'], ['21', 'Geek Oak', 'PYTHON'], ['31', 'John Lesner', 'JAVA']]	~

Correct

Question ${\bf 5}$

Correct

Mark 20.00 out of 20.00

Create a Pandas program to join the two dataframes with matching records from both sides where available.

For example:

Immut.	Pocult
Input	Result
{'s_id': ['S1','S2','S3','S4','S5'],'name': ['Danniella Fenton', 'Ryder	Original DataFrames:
Storey', 'Bryce Jensen', 'Ed Bernal', 'Kwame Morin'], 'marks': [200, 210,	s_id name
190, 222, 199]}	marks
{'s_id': ['S4', 'S5', 'S6', 'S7', 'S8'], 'name': ['Scarlette Fisher', 'Carla	0 S1 Danniella Fenton
Williamson', 'Dante Morse', 'Kaiser William', 'Madeeha Preston'], 'marks':	200
[201, 200, 198, 219, 201]}	1 S2 Ryder Storey
	210
	2 S3 Bryce Jensen
	190
	3 S4 Ed Bernal
	222 4 S5 Kwame Morin
	199
	201
	1 S5 Carla Williamson
	200
	201 1 S5 Carla Williamson 200 2 S6 Dante Morse 198
	3 S7 Kaiser William
	219
	4 S8 Madeeha Preston
	201
	Merged data (outer join):
	s_id name_x marks_x name_y
	marks_y
	0 S1 Danniella Fenton
	200.0 NaN
	NaN
	1 S2 Ryder Storey
	210.0 NaN
	NaN
	2 S3 Bryce Jensen

Input	Result	t
	190.0	NaN
	NaN	
	3 S4	Ed Bernal
	222.0	Scarlette Fisher
	201.0	
	4 S5	Kwame Morin
	199.0	Carla Williamson
	200.0	
	5 S6	NaN NaN
	NaN	Dante Morse
	198.0	
	6 S7	7 NaN
	NaN	Kaiser William
	219.0	
	7 S8	NaN
	NaN	Madeeha Preston
	201.0	

```
import pandas as pd
s1=pd.DataFrame(eval(input()))
s2=pd.DataFrame(eval(input()))
print("Original DataFrames:")
print(s1)
print(s2)
r=pd.merge(s1,s2,on ="s_id",how="outer")
print("Merged data (outer join):")
print(r)
```

	Input	Expected		Got		
		-Apoctou				+
~	{'s_id': ['S1','S2','S3','S4','S5'],'name':	Original		Original		
	['Danniella Fenton', 'Ryder Storey', 'Bryce Jensen',	DataFrames:	:	DataFra	ames:	
	'Ed Bernal', 'Kwame Morin'], 'marks': [200, 210, 190,	s_id		s_id		
	222, 199]}	name marks	5	name r	narks	
	{'s_id': ['S4', 'S5', 'S6', 'S7', 'S8'], 'name':	0 S1 Dan	nniella	0 S1	Danniella	
	['Scarlette Fisher', 'Carla Williamson', 'Dante	Fenton 2	200	Fenton	200	
	Morse', 'Kaiser William', 'Madeeha	1 S2	Ryder	1 S2	Ryder	
	Preston'],'marks': [201, 200, 198, 219, 201]}	Storey 2	210	Storey	210	
		2 S3	Bryce	2 S3	Bryce	
			L90	Jensen	190	
		3 S4	Ed	3 S4	Ed	
		Bernal 2	222	Bernal	222	
		4 S5		4 S5		
		Kwame Morin	1	Kwame 1	Morin	
		199		199		
		s_id		s_id		
		name marks	5	name r	narks	
		0 S4 Sca	arlette	0 S4	Scarlette	
		Fisher 2	201	Fisher	201	
		1 S5 Car	rla	1 S5	Carla	
		Williamson	200	Williar	nson 200	
		2 S6		2 S6		
		Dante Morse	2	Dante I	Morse	
		198		198		
		3 S7 K	Kaiser	3 S7	Kaiser	
		William	219	Willian	n 219	
		4 S8 Ma	adeeha	4 S8	Madeeha	
		Preston	201	Presto	n 201	
		Merged data	9	Merged	data	
		(outer join	n):	(outer	join):	
		s_id		s_id		
			rks_x	name_x	marks_x	
			rks_y	name_y	marks_y	
			nniella	0 S1	Danniella	
			200.0	Fenton	200.0	

nput	Expected	Got	
	NaN NaN	NaN NaN	
	1 S2 Ryder	1 S2 Ryder	
	Storey 210.0	Storey 210.0	
	NaN NaN	NaN NaN	
	2 S3 Bryce	2 S3 Bryce	
	Jensen 190.0	Jensen 190.0	
	NaN NaN	NaN NaN	
	3 S4 Ed	3 S4 Ed	
	Bernal 222.0	Bernal 222.0	
	Scarlette Fisher	Scarlette Fisher	
	201.0	201.0	
	4 S5	4 S5	
	Kwame Morin	Kwame Morin	
	199.0 Carla	199.0 Carla	
	Williamson	Williamson	
	200.0	200.0	
	5 S6	5 S6	
	NaN NaN	NaN NaN	
	Dante Morse	Dante Morse	
	198.0	198.0	
	6 S7	6 S7	
	NaN NaN	NaN NaN	
	Kaiser William	Kaiser William	
	219.0	219.0	
	7 S8	7 S8	
	NaN NaN	NaN NaN	
	Madeeha Preston	Madeeha Preston	
	201.0	201.0	

Correct