Rajalakshmi Engineering College

Name: Reshma AL 1

Email: 241901089@rajalakshmi.edu.in

Roll no: 241901089 Phone: 9884453399

Branch: REC

Department: I CSE (CS) FB

Batch: 2028

Degree: B.E - CSE (CS)



NeoColab_REC_CS23221_Python Programming

REC_Python_Week 7_MCQ

Attempt : 1 Total Mark : 20 Marks Obtained : 19

Section 1: MCQ

1. What will be the output of the following code?

import pandas as pnd pnd.Series([1,2], index= ['a','b','c'])

Answer

Value Error

Status: Correct Marks: 1/1

2. Minimum number of argument we require to pass in pandas series?

Answer

1

Status: Correct Marks: 1/1

3. What is the primary data structure used in NumPy for numerical computations?

Answer

Array

Marks: 1/1 Status: Correct

The important data structure of pandas is/are ____.

Answer

Data Frame

Marks: 0/1 Status: Wrong

5. Which of the following is a valid way to import NumPy in Python?

Answer

import numpy as np

Status: Correct Marks: 1/1

6. What is the output of the following NumPy code?

import numpy as np arr = np.array([1, 2, 3, 4, 5])r = arr[2:4]print(r)

Answer

[3 4]

Marks: 1/1 Status: Correct

7. In the DataFrame created in the code, what is the index for the row containing the data for 'Jack'?

```
import pandas as pd
data = {'Name': ['Tom', 'Jack', 'nick', 'juli'],
      'marks': [99, 98, 95, 90]}
    df = pd.DataFrame(data, index=['rank1',
            'rank2',
            'rank3'.
            'rank4'])
    print(df)
    Answer
                                                                     Marks : 1/1
    rank2
   Status: Correct
    8. What does NumPy stand for?
    Answer
    Numerical Python
    Status: Correct
                                                                      Marks: 1/1
    9. Which NumPy function is used to create an identity matrix?
  Answer
    numpy.identity()
    Status: Correct
                                                                      Marks: 1/1
    10. What is the output of the following code?
    import numpy as np
    a = np.arange(10)
    print(a[2:5])
    Answer
[2, 3, 4]
```

Status: Correct Marks: 1/1

11. Which NumPy function is used to calculate the standard deviation of an array?

Answer

numpy.std()

Status: Correct Marks: 1/1

12. What will be the output of the following code snippet?

```
import numpy as np
arr = np.array([1, 2, 3])
result = np.concatenate((arr, arr))
print(result)
```

Answer

[1 2 3 1 2 3]

Status: Correct Marks: 1/1

13. What is the purpose of the following NumPy code snippet?

```
import numpy as np
arr = np.zeros((3, 4))
print(arr)
```

Answer

Displays a 3x4 matrix filled with zeros

Status: Correct Marks: 1/1

14. Which NumPy function is used to find the indices of the maximum and minimum values in an array?

Answer

argmax() and argmin()

Status : Correct Marks : 1/1

15. Which function is used to create a Pandas DataFrame?

Answer

pd.DataFrame()

Status: Correct Marks: 1/1

16. What does the np.arange(10) function in NumPy do?

Answer

Creates an array with values from 1 to 9

Status: Correct Marks: 1/1

17. What is the output of the following NumPy code snippet?

import numpy as np arr = np.array([1, 2, 3, 4, 5])r = arr[arr > 2]print(r)

Answer

[3 4 5]

Status: Correct Marks: 1/1

18. In NumPy, how do you access the first element of a one-dimensional array arr?

Answer

arr[0]

Status: Correct

19. What is the primary purpose of Pandas DataFrame?

Answer

To store data in tabular form for analysis and manipulation

Status: Correct Marks: 1/1

20. What is the result of the following NumPy operation?

import numpy as np
arr = np.array([1, 2, 3])
r = arr + 5
print(r)

Answer

[6 7 8]

Status: Correct Marks: 1/1

24,190,1089

047901089

041901089

A1901089

241901089

241901089

241901089

241901089

241901089

Rajalakshmi Engineering College

Name: Reshma AL 1

Email: 241901089@rajalakshmi.edu.in

Roll no: 241901089 Phone: 9884453399

Branch: REC

Department: I CSE (CS) FB

Batch: 2028

Degree: B.E - CSE (CS)



NeoColab_REC_CS23221_Python Programming

REC_Python_Week 7_MCQ

Attempt : 1 Total Mark : 20 Marks Obtained : 19

Section 1: MCQ

1. What will be the output of the following code?

import pandas as pnd pnd.Series([1,2], index= ['a','b','c'])

Answer

Value Error

Status: Correct Marks: 1/1

2. Minimum number of argument we require to pass in pandas series?

Answer

1

Status: Correct Marks: 1/1

3. What is the primary data structure used in NumPy for numerical computations?

Answer

Array

Marks: 1/1 Status: Correct

The important data structure of pandas is/are ____.

Answer

Data Frame

Marks: 0/1 Status: Wrong

5. Which of the following is a valid way to import NumPy in Python?

Answer

import numpy as np

Status: Correct Marks: 1/1

6. What is the output of the following NumPy code?

import numpy as np arr = np.array([1, 2, 3, 4, 5])r = arr[2:4]print(r)

Answer

[3 4]

Marks: 1/1 Status: Correct

7. In the DataFrame created in the code, what is the index for the row containing the data for 'Jack'?

```
import pandas as pd
data = {'Name': ['Tom', 'Jack', 'nick', 'juli'],
      'marks': [99, 98, 95, 90]}
    df = pd.DataFrame(data, index=['rank1',
            'rank2',
            'rank3'.
            'rank4'])
    print(df)
    Answer
                                                                     Marks : 1/1
    rank2
   Status: Correct
    8. What does NumPy stand for?
    Answer
    Numerical Python
    Status: Correct
                                                                      Marks: 1/1
    9. Which NumPy function is used to create an identity matrix?
  Answer
    numpy.identity()
    Status: Correct
                                                                      Marks: 1/1
    10. What is the output of the following code?
    import numpy as np
    a = np.arange(10)
    print(a[2:5])
    Answer
[2, 3, 4]
```

Status: Correct Marks: 1/1

11. Which NumPy function is used to calculate the standard deviation of an array?

Answer

numpy.std()

Status: Correct Marks: 1/1

12. What will be the output of the following code snippet?

```
import numpy as np
arr = np.array([1, 2, 3])
result = np.concatenate((arr, arr))
print(result)
```

Answer

[1 2 3 1 2 3]

Status: Correct Marks: 1/1

13. What is the purpose of the following NumPy code snippet?

```
import numpy as np
arr = np.zeros((3, 4))
print(arr)
```

Answer

Displays a 3x4 matrix filled with zeros

Status: Correct Marks: 1/1

14. Which NumPy function is used to find the indices of the maximum and minimum values in an array?

Answer

argmax() and argmin()

Status : Correct Marks : 1/1

15. Which function is used to create a Pandas DataFrame?

Answer

pd.DataFrame()

Status: Correct Marks: 1/1

16. What does the np.arange(10) function in NumPy do?

Answer

Creates an array with values from 1 to 9

Status: Correct Marks: 1/1

17. What is the output of the following NumPy code snippet?

import numpy as np arr = np.array([1, 2, 3, 4, 5])r = arr[arr > 2]print(r)

Answer

[3 4 5]

Status: Correct Marks: 1/1

18. In NumPy, how do you access the first element of a one-dimensional array arr?

Answer

arr[0]

Status: Correct

19. What is the primary purpose of Pandas DataFrame?

Answer

To store data in tabular form for analysis and manipulation

Status: Correct Marks: 1/1

20. What is the result of the following NumPy operation?

import numpy as np
arr = np.array([1, 2, 3])
r = arr + 5
print(r)

Answer

[6 7 8]

Status: Correct Marks: 1/1

24,190,1089

047901089

041901089

A1901089

241901089

241901089

241901089

241901089

241901089

Rajalakshmi Engineering College

Name: Reshma AL 1

Email: 241901089@rajalakshmi.edu.in

Roll no: 241901089 Phone: 9884453399

Branch: REC

Department: I CSE (CS) FB

Batch: 2028

Degree: B.E - CSE (CS)



NeoColab_REC_CS23221_Python Programming

REC_Python_Week 7_CY

Attempt : 1 Total Mark : 50 Marks Obtained : 45

Section 1: Coding

1. Problem Statement

You are working as a data analyst for a small retail store that wants to track the stock levels of its products. Each product has a unique Name (such as "Toothpaste", "Shampoo", "Soap") and an associated Quantity in stock. Management wants to identify which products have zero stock so they can be restocked.

Write a Python program using the pandas library to help with this task. The program should:

Read the number of products, n.Read n lines, each containing the Name of the product and its Quantity, separated by a space.Convert this data into a pandas DataFrame.Identify and display the Name and Quantity of products with zero stock. If no products have zero stock, display: No products with zero stock.

Input Format

The first line contains an integer n, the number of products.

The next n lines each contain:

<Product_ID> <Quantity>

where <Product_ID> is a single word (e.g., "Shampoo") and <Quantity> is a non-negative integer (e.g., 5).

Output Format

The first line of output prints:

Products with Zero Stock:

If there are any products with zero stock, the following lines print the pandas DataFrame showing those products with two columns: Product_ID and Quantity.

The column headers Product_ID and Quantity are printed in the second line.

Each subsequent line shows the product's name and quantity, aligned under the respective headers, with no index column.

The output formatting (spacing and alignment) follows the default pandas to_string(index=False) style.

If no products have zero stock, print:

No products with zero stock.

241901089

Refer to the sample output for the formatting specifications.

```
Sample Test Case
```

```
Input: 3
    P101 10
    P1020
    P103 5
    Output: Products with Zero Stock:
                          241901089
    Product_ID Quantity
      P102
                  0
Answer
    import pandas as pd
    # Read number of products
    n = int(input())
    # Read product data
    data = [input().split() for _ in range(n)]
    df = pd.DataFrame(data, columns=['Product_ID', 'Quantity'])
    df['Quantity'] = df['Quantity'].astype(int)
    # Filter products with zero stock
   zero_stock = df[df['Quantity'] == 0]
    # Print result
    print("Products with Zero Stock:")
    if zero_stock.empty:
      print("No products with zero stock.")
    else:
      print(zero_stock.to_string(index=False))
```

Marks: 7.5/10 Status: Partially correct 241901089

2. Problem Statement

241901089

Arjun is developing a system to monitor environmental sensors installed in different rooms of a smart building. Each sensor records multiple temperature readings throughout the day. To compare sensor data fairly despite differing scales, Arjun needs to normalize each sensor's readings so that they have a mean of zero and standard deviation of one.

Help him implement this normalization using numpy.

Normalization Formula:

Input Format

The first line of input consists of two integers: sensors (number of sensors) and samples (number of readings per sensor).

The next sensors lines each contain samples space-separated floats representing the sensor readings.

Output Format

The first line of output prints: "Normalized Sensor Data:"

The next lines print the normalized readings as a numpy array, where each row corresponds to a sensor's normalized values.

Refer to the sample output for the formatting specifications.

Sample Test Case

Input: 33

1.0 2.0 3.0

4.0 5.0 6.0

7.0 8.0 9.0

Output: Normalized Sensor Data:

[[-1.22474487 0. 1.22474487]

[-1.22474487 0. 1.22474487]

[-1.22474487 0. 1.22474487]]

Answer

```
import numpy as np
```

```
# Read input
sensors, samples = map(int, input().split())
data = [list(map(float, input().split())) for _ in range(sensors)]
arr = np.array(data)

# Normalize each sensor's readings (row-wise)
means = arr.mean(axis=1, keepdims=True)
stds = arr.std(axis=1, keepdims=True)
normalized = (arr - means) / stds

# Print result
print("Normalized Sensor Data:")
print(normalized)
```

Status: Correct Marks: 10/10

3. Problem Statement

Rekha is a meteorologist analyzing rainfall data collected over 5 years, with monthly rainfall recorded for each year. She wants to find the total rainfall each year and also identify the month with the maximum rainfall for every year.

Help her to implement the task using the numpy package.

Formula:

Yearly total rainfall = sum of all 12 months' rainfall for each year

Month with max rainfall = index of the maximum rainfall value within the 12 months for each year (0-based index)

Input Format

The input consists of 5 lines.

Each line contains 12 floating-point values separated by spaces, representing

the rainfall data (in mm) for each month of that year.

Output Format

The first line of output prints: yearly_totals

The second line of output prints: max_rainfall_months

Refer to the sample output for the formatting specifications.

Sample Test Case

```
Input: 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0 11.0 12.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0 11.0 12.0 13.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0 11.0 12.0 13.0 14.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0 11.0 12.0 13.0 14.0 15.0 5.0 6.0 7.0 8.0 9.0 10.0 11.0 12.0 13.0 14.0 15.0 0utput: [78. 90. 102. 114. 126.] [11 11 11 11]
```

Answer

import numpy as np

```
# Read rainfall data for 5 years
data = [list(map(float, input().split())) for _ in range(5)]
rainfall = np.array(data)
```

```
# Calculate yearly totals (sum across months)
yearly_totals = rainfall.sum(axis=1)
```

```
# Find index of month with max rainfall for each year max_rainfall_months = rainfall.argmax(axis=1)
```

```
# Print results
print(yearly_totals)
print(max_rainfall_months)
```

Status : Correct Marks : 10/10

4. Problem Statement

Rekha works as an e-commerce data analyst. She receives transaction data containing purchase dates and needs to extract the month and day from these dates using the pandas package.

Help her implement this task by performing the following steps:

Convert the Purchase Date column to datetime format, treating invalid date entries as NaT (missing).

Create two new columns:

Purchase Month, containing the month (as an integer) extracted from the Purchase Date.

Purchase Day, containing the day (as an integer) extracted from the Purchase Date. Keep the rest of the data as is.

Input Format

The first line of input contains an integer n, representing the number of records.

The second line contains the CSV header — comma-separated column names.

The next n lines each contain a transaction record in comma-separated format.

Output Format

The first line of output is the text:

Transformed E-commerce Transaction Data:

The next lines print the pandas DataFrame with:

The original columns (including Purchase Date, which is now in datetime format or NaT if invalid).

Two additional columns: Purchase Month and Purchase Day.

The output uses the default pandas DataFrame string representation as produced by print(transformed_df).

Refer to the sample output for the formatting specifications.

Sample Test Case

Input: 3 Customer,Purchase Date Alice,2023-05-15 Bob,2023-06-20 Charlie,2023-07-01

Output: Transformed E-commerce Transaction Data:

Customer Purchase Date Purchase Month Purchase Day

```
0 Alice 2023-05-15 5 15
1 Bob 2023-06-20 6 20
2 Charlie 2023-07-01 7 1
```

Answer

```
import pandas as pd
    import sys
    # Read input
    n = int(input())
   header = input().split(',')
    # Read n lines of CSV data
   data = [input().split(',') for _ in range(n)]
   # Create DataFrame
df = pd.DataFrame(data, columns=header)
   # Convert 'Purchase Date' to datetime, handle invalid formats as NaT
   df['Purchase Date'] = pd.to_datetime(df['Purchase Date'], errors='coerce')
    # Extract month and day into new columns
   df['Purchase Month'] = df['Purchase Date'].dt.month
   df['Purchase Day'] = df['Purchase Date'].dt.day
    # Output
   print("Transformed E-commerce Transaction Data:")
   print(df)
```

Status: Partially correct Marks: 7.5/10

5. Problem Statement

Arjun is monitoring hourly temperature data recorded continuously for multiple days. He needs to calculate the average temperature for each day based on 24 hourly readings.

Help him to implement the task using the numpy package.

Formula:

Reshape the temperature readings into rows where each row has 24 readings (one day).

Average temperature per day = mean of 24 hourly readings in each row.

Input Format

The first line of input consists of an integer value, n, representing the total number of temperature readings.

The second line of input consists of n floating-point values separated by spaces, representing hourly temperature readings.

Output Format

The output prints: avg_per_day

Refer to the sample output for the formatting specifications.

Sample Test Case

Input: 30

 $30.0\ 30.0\ 30.0\ 30.0\ 30.0\ 30.0\ 30.0\ 30.0\ 30.0\ 30.0\ 30.0\ 30.0\ 30.0\ 30.0$

Output: [30.]

Answer

import numpy as np

```
# Read the total number of temperature readings
n = int(input())

# Read all temperature readings as a list of floats
temps = list(map(float, input().split()))

# Convert to numpy array
temps_array = np.array(temps)

# Reshape to (number_of_days, 24)
days = temps_array.reshape(-1, 24)

# Calculate average temperature per day
avg_per_day = days.mean(axis=1)

# Print the result
print(avg_per_day)
```

Status: Correct Marks: 10/10

241901089

047901089

2,47907089

A1901089

24,190,1089

241901089

241901089

241901089

241901089

Rajalakshmi Engineering College

Name: Reshma AL 1

Email: 241901089@rajalakshmi.edu.in

Roll no: 241901089 Phone: 9884453399

Branch: REC

Department: I CSE (CS) FB

Batch: 2028

Degree: B.E - CSE (CS)



NeoColab_REC_CS23221_Python Programming

REC_Python_Week 7_PAH

Attempt : 1 Total Mark : 50 Marks Obtained : 49

Section 1: Coding

1. Problem Statement

You're analyzing the daily returns of a set of financial assets over a period of time. Each day is represented as a row in a 2D array, where each column represents the return of a specific asset on that day.

Your task is to identify which days had all positive returns across every asset using numpy, and output a boolean array indicating these days.

Input Format

The first line of input consists of two integer values, rows and cols, separated by a space.

Each of the next rows lines consists of cols float values representing the returns of the assets for that day.

Output Format

The first line of output prints: "Days where all asset returns were positive:"

The second line of output prints: the boolean array positive_days, indicating True for days where all asset returns were positive and False otherwise.

Refer to the sample output for the formatting specifications.

Sample Test Case

Input; 3 4 0.01 0.02 0.03 0.04 0.05 0.06 0.07 0.08 -0.01 0.02 0.03 0.04

Output: Days where all asset returns were positive:

[True True False]

Answer

import numpy as np

```
# Read input
rows, cols = map(int, input().split())
data = [list(map(float, input().split())) for _ in range(rows)]
returns = np.array(data)
```

Identify days where all asset returns are positive positive_days = np.all(returns > 0, axis=1)

Print the result
print("Days where all asset returns were positive:")
print(positive_days)

Status: Correct Marks: 10/10

2. Problem Statement

A software development company wants to classify its employees based

on their years of service at the company. They want to categorize employees into three experience levels: Junior (less than 3 years), Mid (3 to 6 years, inclusive), and Senior (more than 6 years).

Experience Level Classification:

Junior: Years at Company < 3

Mid: 3 ≤ Years at Company < 6

Senior: Years at Company > 5

You need to create a Python program using the pandas library that reads employee data, processes it into a DataFrame, and adds a new column "Experience Level" to display the appropriate classification for each employee.

Input Format

First line: an integer n representing the number of employees.

Next n lines: each line has a string Name and a floating-point number Years at Company (space-separated).

Output Format

First line: "Employee Data with Experience Level:"

The employee data table printed with no index column, and with columns: Name, Years at Company, Experience Level.

Refer to the sample output for the formatting specifications.

Sample Test Case

Input: 5

Alice 2

Bob 4

Charlie 7

Diana 3

Evan 6

```
Output: Employee Data with Experience Level:
 Name Years at Company Experience Level
Alice
              2.0
                        Junior
  Bob
              4.0
                       Mid
Charlie
               7.0
                         Senior
 Diana
               3.0
                          Mid
               6.0
 Evan
                        Senior
Answer
import pandas as pd
n = int(input())
data = [input().split() for _ in range(n)]
                                                                           241901089
df = pd.DataFrame(data, columns=['Name', 'Years at Company'])
df['Years at Company'] = df['Years at Company'].astype(float)
df['Experience Level'] = df['Years at Company'].apply(
  lambda x: 'Junior' if x < 3 else ('Mid' if x <= 5 else 'Senior')
print("Employee Data with Experience Level:")
print(df.to_string(index=False))
                                                                     Marks: 9/10
Status: Partially correct
```

3. Problem Statement

Arjun is a data scientist working on an image processing task. He needs to normalize the pixel values of a grayscale image matrix to scale between 0 and 1. The input image data is provided as a matrix of integers.

Help him to implement the task using the numpy package.

Formula:

To normalize each pixel value in the image matrix:

```
normalized_pixel = (pixel - min_pixel) / (max_pixel - min_pixel)
```

where min_pixel and max_pixel are the minimum and maximum pixel values in the image matrix, respectively. If all pixel values are the same, the

normalized image matrix should be filled with zeros.

Input Format

The first line of input consists of an integer value, rows, representing the number of rows in the image matrix.

The second line of input consists of an integer value, cols, representing the number of columns in the image matrix.

The next rows lines each consist of cols integer values separated by a space, representing the pixel values of the image matrix.

Output Format

The output prints: normalized_image

Refer to the sample output for the formatting specifications.

Sample Test Case

```
Input: 2
   3
   123
   456
   Output: [[0. 0.2 0.4]
   [0.6 0.8 1.]]
Answer
   import numpy as np
   # Read input
   rows = int(input())
   cols = int(input())
   data = [list(map(int, input().split())) for _ in range(rows)]
   image = np.array(data)
   # Get min and max pixel values
   min_pixel = image.min()
   max_pixel = image.max()
```

```
# Normalize the image
if min_pixel == max_pixel:
    normalized_image = np.zeros_like(image, dtype=float)
else:
    normalized_image = (image - min_pixel) / (max_pixel - min_pixel)
# Print result
print(normalized_image)
```

Status: Correct Marks: 10/10

4. Problem Statement

Arjun manages a busy customer service center and wants to analyze the distribution of customer wait times to improve service efficiency. He decides to group the wait times into intervals of 5 minutes each and count how many customers fall into each interval bucket.

Help him implement this bucketing and counting task using NumPy.

Bucketing Logic:

Divide the wait times into intervals (buckets) of size 5 minutes, e.g.:

$$[0-5)$$
, $[5-10)$, $[10-15)$, ...

Use NumPy's digitize function to determine which bucket each wait time falls into.

Count the number of wait times in each bucket and generate bucket labels.

Input Format

The first line contains an integer n, the number of customer wait times recorded.

The second line contains n space-separated floating-point numbers representing the wait times (in minutes).

Output Format

The first line of output is the text:

Wait Time Buckets and Counts:

Each subsequent line prints the bucket range and the number of wait times in that bucket, formatted as:

```
<bucket_range>: <count>
```

where <bucket_range> is the lower and upper bound of the bucket (inclusive lower bound, exclusive upper bound), for example:

0-5:3

5-10:2

10-15: 1

The output uses the default string formatting of Python's print() function (no extra spaces, no special formatting beyond the specified lines).

Refer to the sample output for the formatting specifications.

Sample Test Case

Input: 10

2.0 3.0 7.0 8.0 12.0 14.0 18.0 19.0 21.0 25.0

Output: Wait Time Buckets and Counts:

0-5: 2

5-10: 2

10-15: 2

15-20: 2

20-25: 1

Answer

import numpy as np import math n = int(input())

```
wait_times = np.array(list(map(float, input().split())))
max_time = wait_times.max()
upper_limit = math.ceil(max_time / 5) * 5
bins = np.arange(0, upper_limit + 5, 5)
indices = np.digitize(wait_times, bins, right=False)
counts = [(indices == i).sum() for i in range(1, len(bins))]
print("Wait Time Buckets and Counts:")
for i in range(len(counts)):
  print(f"{bins[i]}-{bins[i+1]}: {counts[i]}")
```

Status: Correct Marks: 10/10

5. Problem Statement

241901089 A company conducted a customer satisfaction survey where each respondent provides their RespondentID and an optional textual Feedback. Sometimes, respondents submit their ID without any feedback or with empty feedback.

Your task is to process the survey responses using pandas to replace any missing or empty feedback with the phrase "No Response". Finally, print the cleaned survey responses exactly as shown in the sample output.

Input Format

The first line contains an integer n, the number of survey responses.

Each of the next n lines contains:

A RespondentID (a single alphanumeric string without spaces),

Followed optionally by a Feedback string, which may be empty or missing.

If no feedback is provided after the RespondentID, treat it as missing.

Output Format

Print the line:

Survey Responses with Missing Feedback Filled:

Then print the cleaned survey data as a table with two columns: RespondentID and Feedback.

The table should have the headers exactly as:

RespondentID Feedback

Print each respondent's data on a new line, aligned to match the output produced by pandas.DataFrame.to_string(index=False).

For any missing or empty feedback, print "No Response" in the Feedback column.

Maintain the spacing and alignment exactly as shown in the sample outputs.

241901089

Refer to the sample output for the formatting specifications.

Sample Test Case

Input: 4

101 Great service

102

103 Loved it

104

Output: Survey Responses with Missing Feedback Filled:

Feedback RespondentID

101 Great service

102 No Response

103 Loved it

104 No Response

Answer

import pandas as pd

```
# Read number of responses
n = int(input())
# Read and process each line
data = ∏
for _ in range(n):
  line = input().strip()
  parts = line.split(maxsplit=1)
  respondent_id = parts[0]
  feedback = parts[1].strip() if len(parts) > 1 and parts[1].strip() else "No
Response"
  data.append([respondent_id, feedback])
                                                                           241901089
# Create DataFrame
df = pd.DataFrame(data, columns=['RespondentID', 'Feedback'])
# Print result
print("Survey Responses with Missing Feedback Filled:")
print(df.to_string(index=False))
```

Status: Correct Marks: 10/10

247907089

041901089

0A1901089

2,47907089

241901089

241901089

241901089

241901089