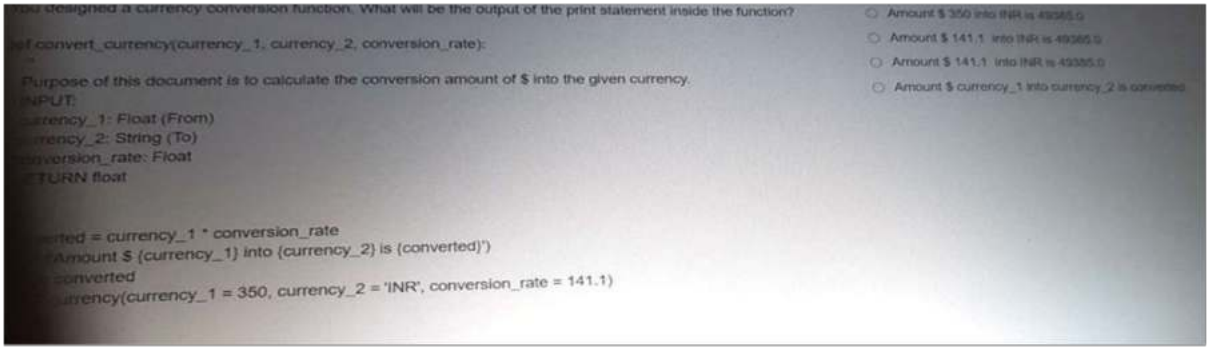
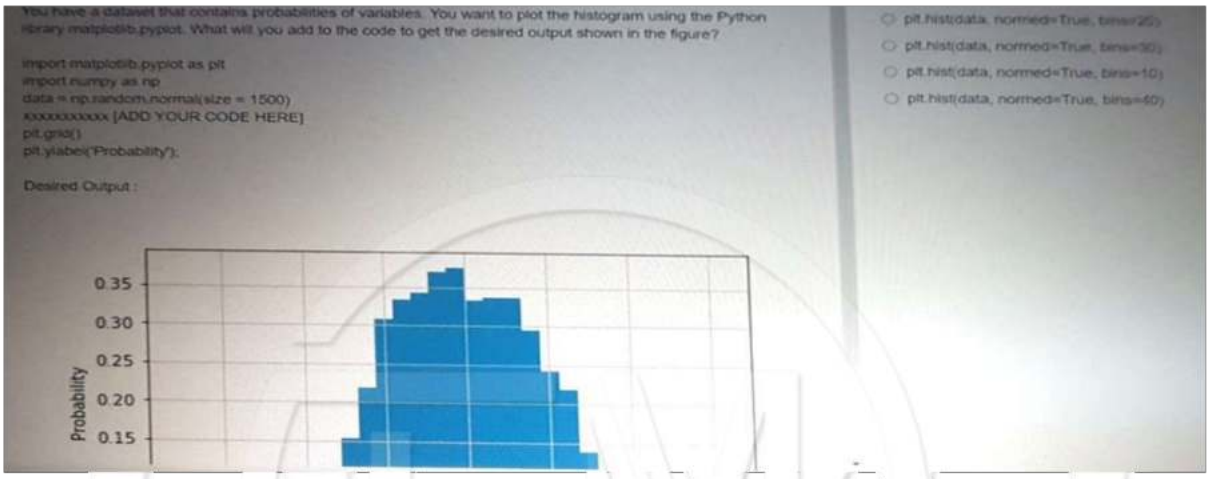




A variable "data" contains the following Pandas DataFrame (it only shows the first 5 rows).

What should you write if you want to find the number of unique countries in this DataFrame (df)?

	country	continent	year	lifeExpectancy	population	gdpPerCapita
0	Afghanistan	Asia	1952	28.801	8425333	779.445314
1	Afghanistan	Asia	1957	30.332	9240934	820.853030
2	Afghanistan	Asia	1962	31.997	10267083	853.100710
3	Afghanistan	Asia	1967	34.020	11537966	836.197138
4	Afghanistan	Asia	1972	36.088	13079460	739.981106

- df.unique("country")
- df.country.unique_values()
- df["country"].unique()
- df["country"].count()

A co-worker realized that he made a mistake in the data entry of the annual review. He has requested you to change the review number from 400 to 455. How will you achieve this task?
annual_review = [120, 400, 324, 435, 110, 870, 234, 654]

- Annual_review[1] = 455
- Annual_review[0] = 455
- Annual_review[2] = 455
- Annual_review[400] = 455

You designed a currency conversion function. What will be the output of the print statement inside the function?

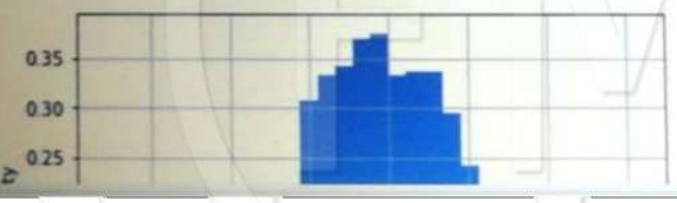
```
def convert_currency(currency_1, currency_2, conversion_rate):
    """
    Purpose of this document is to calculate the conversion amount of $ into the given currency
    INPUT:
    currency_1: Float (From)
    currency_2: String (To)
    conversion_rate: Float
    RETURN float
    """
    converted = currency_1 * conversion_rate
    print(f'Amount $ {currency_1} into {currency_2} is {converted}')
    return converted
convert_currency(currency_1 = 350, currency_2 = 'INR', conversion_rate = 141.1)
```

- Amount $ 350 into INR is 49385.0
- Amount $ 141.1 into INR is 49385.0
- Amount $ 141.1 into INR is 49385.0
- Amount $ currency_1 into currency_2

You have a dataset that contains probabilities of variables. You want to plot the histogram using the Python library matplotlib.pyplot. What will you add to the code to get the desired output shown in the figure?

```
import matplotlib.pyplot as plt
import numpy as np
data = np.random.normal(size = 1500)
xxxxxxxxxx [ADD YOUR CODE HERE]
plt.grid()
plt.ylabel('Probability');
```

Desired Output:



- plt.hist(data, normed=True, bins=20)
- plt.hist(data, normed=True, bins=30)
- plt.hist(data, normed=True, bins=10)
- plt.hist(data, normed=True, bins=40)

Note: This file is posted in our channel for free. (https://t.me/fresco_milestone).

Which function call will create the scatter plot?

- plt.scatter()
- plt.dot()
- plt.plot(scatter)
- plt.scatter_plot()

You have the gym dataset gym_df. While looking into the data, you realised, you don't need all columns. Which code will help you extract 'Name' and 'Trainer' column only.

- gym_df["name","trainer"]
- gym_df[["name","trainer"]]
- gym_df["name","trainer"].only()
- gym_df["name","trainer"].extract()

How will you change a 1-D array into a 2-D array as shown in the below figure?

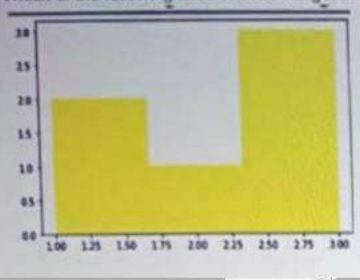
```
[ 0  1  2  3  4  5  6  7  8  9 10 11 12 13 14]  ------>  [[ 0  1  2]
                                                          [ 3  4  5]
                                                          [ 6  7  8]
                                                          [ 9 10 11]
                                                          [12 13 14]]
```

- np.arange(15).reshape(5,3)
- np.arange(15).reshape(3,5)
- np.arange(15).tomatrix(5,3)
- np.arange(15).tomatrix(3,5)

You are given a dataset.In it, instead of complete email address in the email column, you just wish to keep the email provider information (everything after "@" sign). Which command will help you do that?

- customers["email"].apply(lambda x: x.split('@')[1])
- customers["email"].apply(lambda x: x.split('@')[0])
- customers["email"].split('@')[1]
- customers["email"].split('@')[0]

Which of the following lines of code will generate this graph?



- plt.hist([1,3,3,3,3,2],3, color='yellow')
- plt.hist([1,3,1,3,3,2], color='yellow')
- plt.hist([1,3,1,3,2,2],3, color='yellow')
- plt.hist([1,3,1,3,3,2],3, color='yellow')

Based on the class given below, how will you initiate the "books" class?

```
class books:
  def __init__(self, number_of_books):
    self.num = number_of_books
  def createbooks(self):
    books = {}
    for n in range(self.num):
      books[n] = str(n)+'_090_'+'book'

  return books
```

- books.createbooks(number_of_books = 4)
- books.createbooks
- books(number_of_books = 4)
- books()

A co-worker realized that he made a mistake in the data entry of the annual review. He has requested you to change the review number from 400 to 455. How will you achieve this task?
annual_review = [120, 400, 324, 435, 110, 870, 234, 654]

- Annual_review[1] = 455
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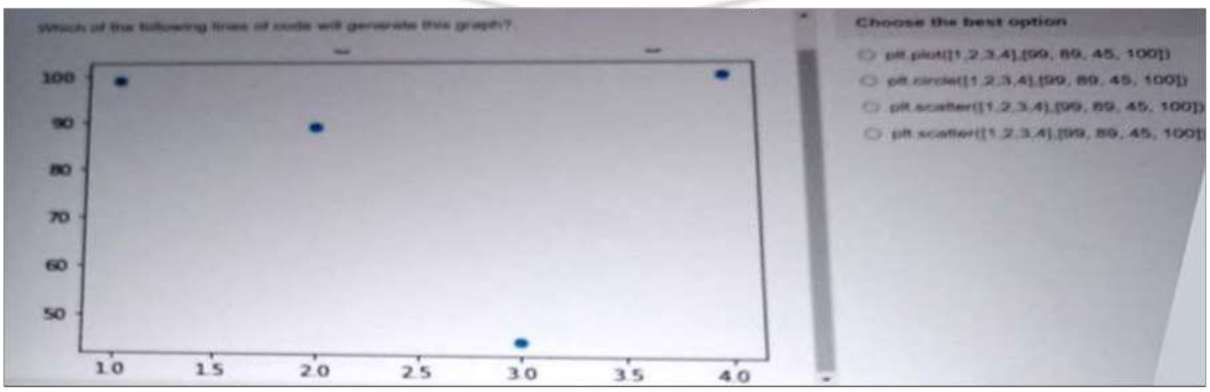
- Annual_review[400] = 455

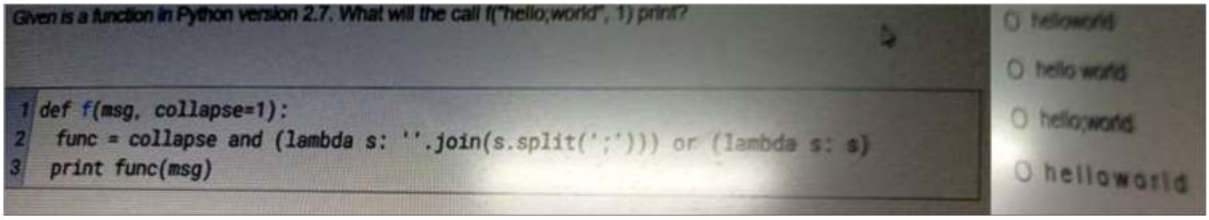
Clear Response

ou got monthly online revenue of multiple products as a DataFrame. Your boss wants a report that shows the venue of each product month-wise. Which code snippet will fulfill the purpose?

- value_counts()
- groupby()
- sort_values()
- count()

Note: This file is posted in our channel for free. (https://t.me/fresco_milestone).

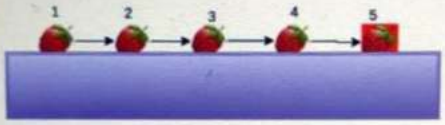




How to attempt?
Question :

Strawberry Feast

The University of Burcklen organizes a strawberry eating competition every spring-fall. In this competition, the participant has to register their strawberry eating capacity with the organizer. The capacity refers to the maximum number of strawberries that can be eaten by the participant in one sitting before they move on to the next sitting.



The strawberries are kept in a numbered line from 1 to N and the goal of the contest is to eat the Burcklen Strawberry. This special strawberry is kept at N th position on the table. The participant has to eat the strawberries in succession from 1 to N.

You are one of the Chief Guests at the event and you are asked to suggest to the participants, the number of ways in which they can eat the Burcklen Strawberry. For given N, S(1<=S<=N), find the number of ways to eat the Burcklen Strawberry.

Input Specification:

Input Specification:

input1: N, number of strawberries kept on the table.
input2: S, number of strawberries the participant can eat at a time.

Output Specification:

Your function should return the number of ways to eat the Burcklen Strawberry kept at the Nth position.

Example 1:

input1: 4
input2: 2

Output: 5

Explanation:
The 5 ways to finish the contest are:
(1, 1, 1, 1)
(1, 1, 2)
(1, 2, 1)
(2, 1, 1)
(2, 2)

input1: 6
input2: 2

Output: 13

Explanation:
The 13 ways to finish the contest are:
(1, 1, 1, 1, 1, 1)
(1, 1, 1, 1, 2) and its 4 permutations
(1, 1, 2, 2) and its 5 permutations
(2, 2, 2)

Note: The given tuple (A1, A2 .. An) refers to the number of strawberries eaten in each sitting.