

What is the purpose of the following function?
`__doc_String__`

- ☐ It will show if there are any print statements in the function.
- ☐ It will return all the String variables defined in the function.
- ☐ It will display any comments written inside `'''`.
- ☐ It will create a function for all string variables.

What will `abs(200 - 865)` return?

- ☒ -665
- ☐ 665
- ☐ Syntax Error
- ☐ MathError
- Clear Response

You were asked to review the code written by your peer. What should be the output of the code snippet given below?
`calculations = [num * 2 for num in range(1,8)]`

- ☒ [0,2,4,6,8,10]
- ☐ [2,4,6,8,10,12]
- ☐ [2,4,6,8,10,12,14]
- ☐ [2,4,6,8,10,12,14,16]
- Clear Response

What will be the data type of the variable "marks"?

```
mark1 = 10
mark2 = 15.3
marks = mark1 + mark2
```

- ☒ long
- ☐ int
- ☐ str
- ☐ float
- Clear Response

You have been asked to present a quick statistical summary of the given dataset. The summary should have the following information:

- > Number of elements in the dataset
- > Mean
- > Standard Deviation
- > Minimum
- > Maximum

Which code snippet will generate this information fast?

```
import random as rd
import numpy as np
import statistics
```

```
population = pd.Series(rd.sample(range(1500, 1600),k= 10))
print(population)
xxxxxxxxxx [ADD YOUR CODE HERE]
```

- ☒ `Min = np.min(population)`
`Max = np.max(population)`
`Std = np.std(population)`
`Length = len(population)`
`Mean = np.mean(population)`
- ☐ `Population.info()`
- ☐ `population.describe()`
- ☐ `population.report()`
- Clear Response

What will be the output of the following code?

```
15 == (20-5)
```

- ☒ true
- ☐ `SyntaxError: cannot assign to the literal`
- ☐ false
- ☐ `SyntaxError: unexpected EOF while parsing`
- Clear Response



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What do the following represent?
Pandas, NumPy, sklearn, keras

- ☒ Python libraries
- ☐ Python functions
- ☐ Python class
- ☐ Python data type
- Clear Response

What will be the output of this code?
`a = 'Data'`
`print(f'{a * 10}')`

- ☒ Data10
- ☐ Data Data Data Data Data Data Data Data Data
- ☐ DDDDDDDDDD aaaaaaaaaa tttttttt aaaaaaaaaa
- ☐ DDDDDDDDDData
- Clear Response

How will you find the range (minimum value and the maximum value) of the complete dataset?

```
import random as rd
import numpy as np
population = rd.sample(range(20000, 60000), k= 20)
print(population)
```

xxxxxxxxxx [ADD YOUR CODE HERE]

- ☒ `np.range(population)`
- ☐ `np.min(population)`
- ☐ `np.max(population)`
- ☐ both Choice 2 and Choice 3.
- Clear Response

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

You are working for a Car dealership company and you've got 2 datasets.

	Name	Starting_Price
0	Toyota	37K
1	Honda	30K
2	Infiniti	50K
3	Jeep	45K

	Name	Manufacture_date
0	Toyota	1990
1	audi	1998
2	Honda	1980
3	Infiniti	2000

Which merge statement will give you the following output

	Name	Starting_Price
0	Toyota	37K
1	Honda	30K
2	Infiniti	50K
3	Jeep	45K

	Name	Manufacture_date
0	Toyota	1990
1	audi	1998
2	Honda	1980
3	Infiniti	2000

Desired Output ---->

	Name	Starting_Price	Manufacture_date
0	Toyota	37K	1990.0
1	Honda	30K	1980.0
2	Infiniti	50K	2000.0
3	Jeep	45K	NaN
4	audi	NaN	1998.0

- ☒ `pd.merge(cars_df, models_df, on= "Name", how="inner")`
- ☐ `pd.merge(cars_df, models_df, on= "Name", how="outer")`
- ☐ `pd.merge(cars_df, models_df, on= "Name", how="left")`
- ☐ `pd.merge(cars_df, models_df, on= "Name", how="right")`
- Clear Response

Data types are important and at times, we have to change the data type as per requirement.
How will you create the array shown below keeping in mind the kind of data stored in it?

```
array([0.+0.j, 1.+0.j, 2.+0.j, 3.+0.j, 4.+0.j])
```

- ☐ `np.arange(5, dtype = float)`
- ☐ `np.arange(4, dtype = float)`
- ☐ `np.arange(5, dtype = complex)`
- ☐ `np.arange(4, dtype = complex)`

You are doing data cleaning. How would you clean this string?

string = 'David&Emerson' to 'David Emerson'

You are supposed to remove the symbol '&' and replace it with ' ' (space)

- ☐ `string.replace('&', '')`
- ☐ `string.change('&', '')`
- ☐ `string.delete('&', '')`
- ☐ `string.flip('&', '')`



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Which code snippet will help to create an array of size (3,2) with all zeros.

```
[[ 0.  0.]  
 [ 0.  0.]  
 [ 0.  0.]]
```

- ☒ np.full((3,2),0)
- ☐ np.zeros((3,2))
- ☐ Choice 1 and Choice 2
- ☐ np.empty(3,2)
- Clear Response

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You are given data of customers in two tables. One table has customers' personal information and the second table has their online buying data. You want to merge both tables to get the complete data from both tables. Which join will you use in the pd.merge command to get the required results?

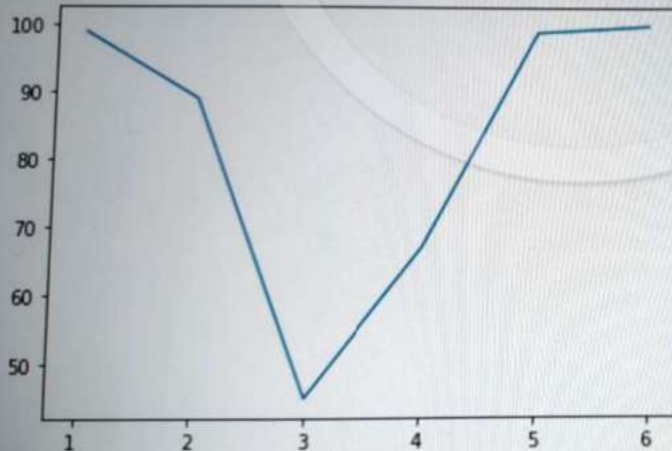
- ☒ inner
- ☐ outer
- ☐ left
- ☐ right
- Clear Response

What is the value of the variable temp?

```
for num in range(1,10):  
    temp = temp + num  
print(temp)
```

- ☒ 45
- ☐ 50
- ☐ NameError
- ☐ 55
- Clear Response

Which of the following will produce this graph?



Choose the best option

- ☒ plt.plot([0,2,3,4,5,6],[99, 89, 45, 67, 99, 100])
- ☐ plt.plot([1,2,3,4,5,6],[99, 89, 45, 67, 99, 100])
- ☐ plt.plot([99, 89, 45, 67, 99, 100])
- ☐ plt.plot([1,2,3,4,5,6],[99, 89, 45, 67, 99, 10])
- Clear Response

How will you convert a list into Pandas DataFrame?

- ☒ list.to_pandas()
- ☐ list.pandas()
- ☐ pd.dataframe(list)
- ☐ pd.dataframe()
- Clear Response

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A variable df contains the following Pandas DataFrame. What is the correct syntax for selecting part of the data for 2012 and 2016?

	attendees	average age	year
0	112	24	2008
1	321	43	2012
2	729	31	2016

- ☒ df.select['year']>2009
 - ☐ df(df['year']>2009)
 - ☐ df[df['year']>2009]
 - ☐ df['average']>43
- Clear Response

While working with a temperature dataset, you applied the following code snippet. What will the below code do?

```
temp['Temperature'].apply(lambda x : x-1 )
```

	Months	Temperature
0	Jan	12.5
1	Feb	23.0
2	Mar	21.5
3	Apr	11.7
4	May	5.0
5	June	11.3
6	July	29.0
7	Aug	9.3
8	Sep	32.0
9	Oct	1.0

- ☒ It will subtract 1 from the first temperature value.
 - ☐ It will give an error.
 - ☐ It will subtract 1 from each value in the temperature column.
 - ☐ It will add another column with temperature-1 values.
- Clear Response

Which Pandas method will convert a column type from object to float, even if there are invalid numbers in that column?

- ☒ Astype(float)
 - ☐ To_numeric
 - ☐ Coerce
 - ☐ Dtypes
- Clear Response

Global and local variables are integral for programming. In your opinion, what will be the output of the function "addition"?

```
al = 5
def multi(number):
    return number * al

def addition(number):
    al = 2
    answer = number + al
    return multi(answer)

addition(5)
```

- ☒ 14
 - ☐ 35
 - ☐ error
 - ☐ 5
- Clear Response



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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()
- [Clear Response](#)

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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.

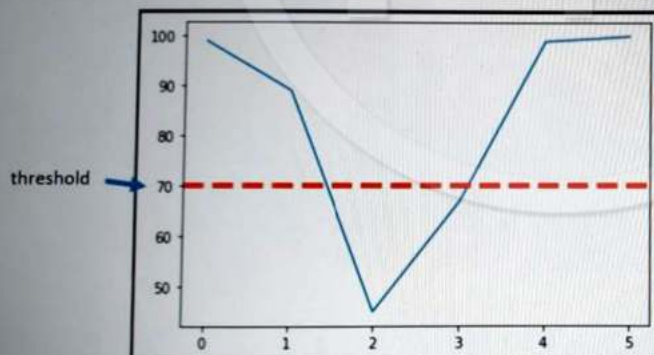
- ☒ gym_df[["name", "trainer"]]
- ☐ gym_df[["name", "trainer"]]
- ☐ gym_df[["name", "trainer"].only()]
- ☐ gym_df[["name", "trainer"].extract()]
- [Clear Response](#)

As a reviewer, what do you think, the below code will do?

```
comment = 'Real estate investment is the real gold these days'
count = [len(data) for data in comment.split()]
print(count)
```

- ☒ It will print the length of each word in the comment.
- ☐ It will print the total number of alphabets in the comment.
- ☐ It will print the total number of words in the comment.
- ☐ It will print the number of spaces between the words.
- [Clear Response](#)

In data visualization, labeling of data and axis are important. Which code snippet will let you add the threshold line in the plot given below?



- ☒ plt.axvline(70,linewidth=4,linestyle='--', color='r')
- ☐ plt.axhline(70,linewidth=4,linestyle='--', color='r')
- ☐ plt.axhline(70,5, linewidth=4,linestyle='--', color='r')
- ☐ plt.axhline(70,linewidth=4,linestyle='--', color='b')
- [Clear Response](#)



Q1:

How to attempt?

Question :

All 1s

Alex has a rectangular matrix, with X rows and Y columns. Some of the blocks in this matrix are 1s and the rest are 0s. If you tap on any block, all the blocks horizontal and vertical to that block interchange their value i.e. 0s to 1s and vice-versa. If by doing so you make all the boxes as 1s, taking any number of steps, then that matrix is said to have a perfect solution.

Given the size of a matrix, there are many combinations of placing 0s and 1s in it, but only some have the perfect solution. Find how many perfect solutions are present for the given matrix.

Input Specification:

Given the size of a matrix, there are many combinations of placing 0s and 1s in it, but only some have the perfect solution. Find how many perfect solutions are present for the given matrix.

Input Specification:

input1: Number of rows.
input2: Number of columns.

Output Specification:

Return number of perfect solutions, mod 1000000007 if it is very large.

Example 1:

input1: 2
input2: 2

Return number of perfect solutions, mod 1000000007 if it is very large.

Example 1:

input1: 2
input2: 2

Output: 16

Explanation:

We have 2 * 2 matrix, which can have 16 configurations as each of the 4 blocks can hold 0 or 1. All of the 16 combinations have a perfect solution.

Example 2:

input1: 1
input2: 3

```
# Read only region start
class UserMainCode(object):
    @classmethod
    def perfectSolutions(cls, input1, input2):
        ...

        input1 : int
        input2 : int

        Expected return type : int
        ...

# Read only region end
# Write code here
pass
```

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Q2:

How to attempt?

Question :

Walt, Jesse and the Code-word String

Jesse has written down all three letter continuous sub-strings of the code-word string. According to a game that they are playing, Walt has to recover the original string from the sub-strings.

Help Walt recover the original string from the sub-strings.

Note: The string can contain any character from a-z,A-Z,0-9.

Input Specification:

input1: The number of sub-strings n which Jesse wrote.

input2: The array of sub-strings.

Output Specification:

Output Specification:

The original string.

Example 1:

input1: 3

input2: {42y,2ya,ya6}

Output: 42ya6

Explanation:

Here, the output string can be formed from the given sub-strings.

Example 2:

input1: 2

input2: {abb,bba}

Output: abba

```
2 # Read only region start
3 class UserMainCode(object):
4     @classmethod
5     def original(cls, input1, input2):
6         ...
7         input1 : int
8         input2 : string[]
9
10        Expected return type : string
11        ...
12        # Read only region end
13        # Write code here
14        pass
15
```



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