

File Edit Search Source Run Debug Consoles Projects Tools View Help

temp.py ×q-1.py\* ×untitled1.py ×

```
1 # -*- coding: utf-8 -*-
2 """
3 Created on Wed Mar 8 15:25:04 2022
4
5 @author: shyam
6 """
7 """
8 Consider the vector [10, 11, 12, 13, 14], how to build a new vector with 5
9 consecutive zeros interleaved between each value?
10 """
11 import numpy as np
12 x =10
13 y =14
14 z = y + 1
15 nums = np.arange(x,z)
16 print("Original array: ",nums)
17 a = 5
18 new_nums = np.zeros(len(nums) + (len(nums)-1)*(a))
19 new_nums[::a+1] = nums
20 print("\nNew array:")
21 print(new_nums)
```

Variable Explorer

Name	Type	Size	Value
a	int	1	5
new_nums	Array of float64	(25,)	[10. 0. 0. ... 0. 0. 14.]
nums	Array of int32	(5,)	[10 11 12 13 14]
p	int	1	5
x	int	1	10
y	int	1	14
z	int	1	15

HelpVariable ExplorerPlotsFiles

Console 1/A ×

```
In [3]: runfile('C:/Users/shyam/OneDrive/Desktop/untitled0.py', wdir='C:/Users/shyam/
OneDrive/Desktop')
Original array:
[10 11 12 13 14]

New array:
[10. 0. 0. 0. 0. 0. 11. 0. 0. 0. 0. 0. 12. 0. 0. 0. 0. 0.
 13. 0. 0. 0. 0. 0. 14.]

In [4]: runfile('C:/Users/shyam/OneDrive/Desktop/tasks/Task-8/q-1.py', wdir='C:/Users/
shyam/OneDrive/Desktop/tasks/Task-8')
Original array: [10 11 12 13 14]

New array:
[10. 0. 0. 0. 0. 0. 11. 0. 0. 0. 0. 0. 12. 0. 0. 0. 0. 0.
 13. 0. 0. 0. 0. 0. 14.]

In [5]:
```

IPython ConsoleHistory

LSP Python: ready custom (Python 3.7.9) main [58] Line 21, Col 16 UTF-8 CRLF RW Mem 8196

```
C:\Users\shyam\OneDrive\Desktop\tasks\Task-8\q-2.py

temp.py X q-1.py X q-2.py X

1  # -*- coding: utf-8 -*-
2  """
3  Created on Wed Mar  8 15:36:43 2022
4
5  @author: shyam
6  Consider two random array A and B, check if they are equal
7  """
8
9  import array as arr
10
11  a = arr.array('i', [])
12
13  k = int(input("Enter size of array:"))
14  for i in range(0, k):
15      num = int(input("Enter %d array element:" % (i + 1)))
16      a.append(num)
17  b=arr.array('i', [])
18  l = int(input("Enter size of array:"))
19  for i in range(0, l):
20      num = int(input("Enter %d array element:" % (i + 1)))
21      b.append(num)
22  print()
23
24  if a==b:
25      print("a is equal to b")
26  else:
27      print("a is not equal to b")
28
29
```

C:\Users\shyam\OneDrive\Desktop\tasks\Task-8

Source Console Object

## Usage

Here you can get help of any object by pressing **Ctrl+I** in front of it, either on the Editor or the Console.

Help can also be shown automatically after writing a left parenthesis next to an object. You can activate this behavior in *Preferences > Help*.

New to Spyder? Read our [tutorial](#)

Help Variable Explorer Plots Files

Console 1/A X

```
a is equal to b

In [8]: runfile('C:/Users/shyam/OneDrive/Desktop/tasks/Task-8/untitled1.py', wdir='C:/Users/shyam/OneDrive/Desktop/tasks/Task-8')

Enter size of array:2

Enter 1 array element:1

Enter 2 array element:2

Enter size of array:2

Enter 1 array element:1

Enter 2 array element:2

a is equal to b

In [9]:
```

IPython Console History

C:\Users\shyam\OneDrive\Desktop\tasks\Task-8\q-3.py

temp.py × q-1.py × q-2.py × q-3.py ×

```
1 # -*- coding: utf-8 -*-
2 """
3 Created on Wed Mar 8 15:50:19 2022
4
5 @author: shyam
6 """
7 import numpy as np
8 print(0 * np.nan)
9 print(np.nan != np.nan)
10 print(np.inf > np.nan)
11 print(np.nan - np.nan)
12 print(0.3 == 3 * 0.1)
```

Source Console Object

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Help Variable Explorer Plots Files

Console 1/A ×

```
import numpy as np
```

ModuleNotFoundError: No module named 'numpy'

## Warning

It seems you're trying to use a module that doesn't come with our installer. Check [this FAQ](#) in our docs to learn how to do this.

```
In [10]: runfile('C:/Users/shyam/OneDrive/Desktop/tasks/Task-8/untitled2.py', wdir='C:/Users/shyam/OneDrive/Desktop/tasks/Task-8')
```

```
nan
True
False
nan
False
```

```
In [11]:
```

IPython Console History

temp.py × q-1.py × q-2.py × q-3.py × q-4.py × untitled5.py\* ×

```
1 # -*- coding: utf-8 -*-
2 """
3 Created on Wed Mar  8 15:52:31 2022
4
5 @author: shyam
6 """
7
8 import pandas as pd
9 arr = pd.Series(['amrita', 'school', 'of', 'engineering', 'chennai', 'campus'])
10 p = ""
11 q = arr.str.title()
12 i = 0
13 while i < len(arr):
14     p = p + q[i]
15     i = i + 1
16     p = p + " "
17
18 print(p)
```

Source Console Object   

## Usage

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Help Variable Explorer Plots Files

Console 1/A X

```
In [25]: runfile('C:/Users/shyam/OneDrive/Desktop/tasks/Task-8/untitled4.py', wdir='C:/Users/shyam/OneDrive/Desktop/tasks/Task-8')
array n.o 1: [9 8 7]
array n.o 2: [1 2 3]
sum of array 1 & 2 : [10 10 10]
product of array 1 & 2 : 46
```

```
In [26]: runfile('C:/Users/shyam/OneDrive/Desktop/tasks/Task-8/untitled4.py', wdir='C:/Users/shyam/OneDrive/Desktop/tasks/Task-8')
array n.o 1: [9 8 7]
array n.o 2: [1 2 3]
sum of array 1 & 2 : [10 10 10]
product of array 1 & 2 : 46
```

```
In [27]: runfile('C:/Users/shyam/OneDrive/Desktop/tasks/Task-8/q-4.py', wdir='C:/Users/shyam/OneDrive/Desktop/tasks/Task-8')
```

Amrita School Of Engineering Chennai Campus

IPython Console History

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temp.py ×

q-1.py ×

q-2.py ×

q-3.py ×

q-4.py ×

q-5.py ×

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```
# -*- coding: utf-8 -*-
"""
Created on Wed Mar  8 16:15:59 2022

@author: shyam
"""
'''
sum of two arrays
'''
import numpy as np

p = np.array([9,8,7])
q = np.array([6,5,4])

print ("array n.o 1 : ", p)
print ("array n.o 2 : ", q)

a = np.add(p,q)
print ("sum of arrays 1 & 2 is : ", a)

'''
dot product of matrix
'''
r = np.array([[7,8,9],[4,5,6],[1,2,3]])
s = np.array([[1,2,3],[6,5,4],[7,8,9]])

print ("matrix n.o 1 : ", r)
print ("matrix n.o 2 : ", s)

b=np.dot(r,s)
print('')
print ("product of matrix 1 & 2 is : ", b)
```

Source Console Object

Usage

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Console 1/A ×

product of matrix 1 & 2 is : [15 13 11]

In [30]: runfile('C:/Users/shyam/OneDrive/Desktop/tasks/Task-8/untitled5.py', wdir='C:/Users/shyam/OneDrive/Desktop/tasks/Task-8')

array n.o 1 : [ 9 8 7]

array n.o 2 : [ 6 5 4]

sum of arrays 1 & 2 is : [15 13 11]

matrix n.o 1 : [[7 8 9]

[ 4 5 6]

[ 1 2 3]]

matrix n.o 2 : [[1 2 3]

[ 6 5 4]

[ 7 8 9]]

product of matrix 1 & 2 is : [[118 126 134]

[ 76 81 86]

[ 34 36 38]]

In [31]:

IPython Console History

LSP Python: ready custom (Python 3.7.9) main [58] Line 34, Col 1 UTF-8 CRLF RW Mem 82%