

```
data.py - D:/data.py (3.10.0)
File Edit Format Run Options Window Help
arr = [68, 71, 21, 68, 32, 80, 64, 52, 92, 97, 93, 37, 61, 62, 23, 81, 67,
43, 80, 74, 69, 92, 79, 78, 70, 31, 34, 79, 73, 77, 96, 87, 53, 47, 85, 58,
71, 57, 96, 74, 30, 65, 62, 85, 34, 21, 81, 79, 84, 87, 22, 45, 59, 91, 26,
38, 82, 95, 77, 55, 37, 61, 59, 89, 61, 75, 97, 72, 58, 23, 78, 20, 95, 67,
95, 90, 80, 78, 73, 91, 52, 59, 96, 46, 94, 99, 78, 53, 40, 67, 76, 73, 46,
61, 76, 21, 90, 52, 65, 36, 93, 55, 86, 95, 65, 30, 89, 86, 20, 92, 46, 58, 7
58, 31, 73, 71, 63, 70, 72, 78, 26, 39, 35, 58, 84, 56, 24, 73, 36, 75, 32,
38, 94, 36, 90, 70, 65, 34, 61, 44, 85, 41, 50, 23, 34, 20, 87, 84, 30, 21,
41, 35, 71]
total=sum(arr)
length=len(arr)
avg=total/length
print(avg)
```

```
===== RESTART: D:/data.py =====
Traceback (most recent call last):
  File "D:/data.py", line 17, in <module>
    print(len(arr))
NameError: name 'arr' is not defined
>>>

===== RESTART: D:/data.py =====
220
Traceback (most recent call last):
  File "D:/data.py", line 17, in <module>
    ans=_sum_(arr)
  File "D:/data.py", line 3, in _sum_
    for i in range:
TypeError: 'type' object is not iterable
>>>

===== RESTART: D:/data.py =====
13551
>>>

===== RESTART: D:/data.py =====
61.595454545454544
>>>
```

```
*data.py - D:/data.py (3.10.0)*
File Edit Format Run Options Window Help
arr = [68, 71, 21, 68, 32, 80, 64, 52, 92, 97, 93, 37, 61, 62, 23, 81, 67, 8
43, 80, 74, 69, 92, 79, 78, 70, 31, 34, 79, 73, 77, 96, 87, 53, 47, 85, 58,
71, 57, 96, 74, 30, 65, 62, 85, 34, 21, 81, 79, 84, 87, 22, 45, 59, 91, 26,
38, 82, 95, 77, 55, 37, 61, 59, 89, 61, 75, 97, 72, 58, 23, 78, 20, 95, 67, 5
95, 90, 80, 78, 73, 91, 52, 59, 96, 46, 94, 99, 78, 53, 40, 67, 76, 73, 46, 7
61, 76, 21, 90, 52, 65, 36, 93, 55, 86, 95, 65, 30, 89, 86, 20, 92, 46, 58, 75
58, 31, 73, 71, 63, 70, 72, 78, 26, 39, 35, 58, 84, 56, 24, 73, 36, 75, 32, 3
38, 94, 36, 90, 70, 65, 34, 61, 44, 85, 41, 50, 23, 34, 20, 87, 84, 30, 21, 8
41, 35, 71]
import sys
def thirdLargest(arr, arr_size):
    if (arr_size < 3):
        print(" Invalid Input ")
        return
    first = arr[0]
    for i in range(1, arr_size):
        if (arr[i] > first):
            first = arr[i]
    second = -sys.maxsize
    for i in range(0, arr_size):
        if (arr[i] > second and
            arr[i] < first):
```

data.py - D:/data.py (3.10.0)

File Edit Format Run Options Window Help

```
    print(" Invalid Input ")
    return
first = arr[0]
for i in range(1, arr_size):
    if (arr[i] > first):
        first = arr[i]
second = -sys.maxsize
for i in range(0, arr_size):
    if (arr[i] > second and
        arr[i] < first):
        second = arr[i]
third = -sys.maxsize
for i in range(0, arr_size):
    if (arr[i] > third and
        arr[i] < second):
        third = arr[i]

    print("The Third Largest",
          "element is", third)
n = len(arr)
thirdLargest(arr, n)
```

```
IDLE Shell 3.10.0
File Edit Shell Debug Options Window Help
print(len(arr))
NameError: name 'arr' is not defined
>>>
===== RESTART: D:/data.py =====
220
Traceback (most recent call last):
  File "D:/data.py", line 17, in <module>
    ans=_sum_(arr)
  File "D:/data.py", line 3, in _sum_
    for i in range:
TypeError: 'type' object is not iterable
>>>
===== RESTART: D:/data.py =====
13551
>>>
===== RESTART: D:/data.py =====
61.595454545454544
>>>
===== RESTART: D:/data.py =====
The Third Largest element is 96
>>>
```

```
*data.py - D:/data.py (3.10.0)*
File Edit Format Run Options Window Help
arr = [68, 71, 21, 68, 32, 80, 64, 52, 92, 97, 93, 37, 61, 62, 23, 81, 67, 8
43, 80, 74, 69, 92, 79, 78, 70, 31, 34, 79, 73, 77, 96, 87, 53, 47, 85, 58,
71, 57, 96, 74, 30, 65, 62, 85, 34, 21, 81, 79, 84, 87, 22, 45, 59, 91, 26,
38, 82, 95, 77, 55, 37, 61, 59, 89, 61, 75, 97, 72, 58, 23, 78, 20, 95, 67, 5
95, 90, 80, 78, 73, 91, 52, 59, 96, 46, 94, 99, 78, 53, 40, 67, 76, 73, 46, 7
61, 76, 21, 90, 52, 65, 36, 93, 55, 86, 95, 65, 30, 89, 86, 20, 92, 46, 58, 75
58, 31, 73, 71, 63, 70, 72, 78, 26, 39, 35, 58, 84, 56, 24, 73, 36, 75, 32, 3
38, 94, 36, 90, 70, 65, 34, 61, 44, 85, 41, 50, 23, 34, 20, 87, 84, 30, 21, 8
41, 35, 71]
even_count, odd_count = 0, 0
for num in arr:
    if num % 2 == 0:
        even_count += 1

    else:
        odd_count += 1
print("Even numbers in the arr: ", even_count)
print("Odd numbers in the arr: ", odd_count)
```



```
IDLE Shell 3.10.0
File Edit Shell Debug Options Window Help

>>> ===== RESTART: D:/data.py =====
61.595454545454544
>>> ===== RESTART: D:/data.py =====
The Third Largest element is 96
>>> ===== RESTART: D:/data.py =====
Traceback (most recent call last):
  File "D:/data.py", line 18, in <module>
    ev=len(even_count)
TypeError: object of type 'int' has no len()
>>> ===== RESTART: D:/data.py =====
Even numbers in the arr: 105
Odd numbers in the arr: 115
>>> ===== RESTART: D:/data.py =====
Even numbers in the arr: 105
Odd numbers in the arr: 115
>>>
```

Data Analysis for Python Programming

Task:

Develop a Sales Analysis by using the dataset set given in the link

https://bostonin-my.sharepoint.com/:u:/g/personal/krishna_mouli_bostonindia_in/Ec_0wGWIsOtNtbghyT9KFwoBQjtl8LMYcD_C0GbKxzaUQ?e=MOmLWm

Information of the data

Context

This Online Retail II data set contains all the transactions occurring for a UK-based and registered, non-store online retail between 01/12/2009 and 09/12/2011. The company mainly sells unique all-occasion gift-ware. Many customers of the company are wholesalers.

Content

Attribute Information:



InvoiceNo: Invoice number. Nominal. A 6-digit integral number uniquely assigned to each transaction. If this code starts with the letter 'c', it indicates a cancellation.

StockCode: Product (item) code. Nominal. A 5-digit integral number uniquely assigned to each distinct product.

Description: Product (item) name. Nominal.

Quantity: The quantities of each product (item) per transaction. Numeric.

InvoiceDate: Invoice date and time. Numeric. The day and time when a transaction was generated.

UnitPrice: Unit price. Numeric. Product price per unit in sterling (£).

CustomerID: Customer number. Nominal. A 5-digit integral number uniquely assigned to each customer.

Country: Country name. Nominal. The name of the country where a customer resides.

Enter your code below as you answer

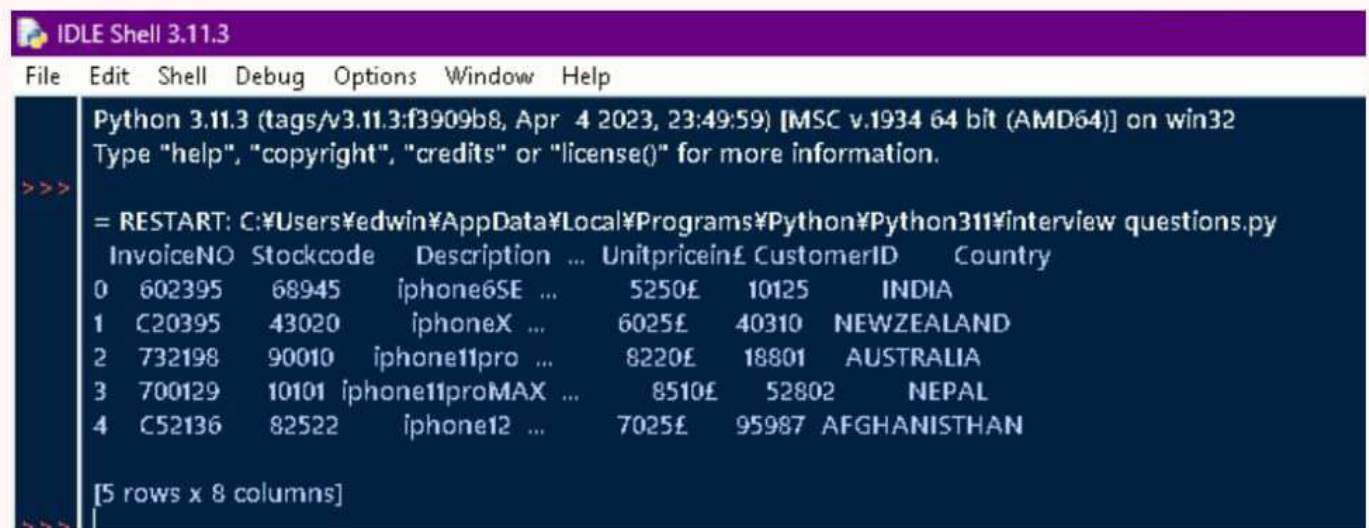



```

import pandas as p
data={'InvoiceNO':['602395','C20395','732198','700129',
C52136'],
      'Stockcode':[68945,43020,90010,10101,82522],
      'Description':['iphone6SE','iphoneX','iphone11pro',
iphone11proMAX','iphone12'],
      'Quantity':[35,38,45,48,60],
      'InvoiceDate':['2021-02-20 12:00pm','2021-02-18
9:35am','2021-02-15 6:15pm','2021-02-17
2:20pm','2021-02-25 8:05pm'],
      'Unitpricein£':['5250£','6025£
','8220£','8510£','7025£'],
      'CustomerID':[10125,40310,18801,52802,95987],
      'Country':['INDIA','NEWZEALAND','AUSTRALIA',
NEPAL','AFGHANISTHAN']}
df=p.DataFrame(data)
print(df)

```

OUTPUT



```

IDLE Shell 3.11.3
File Edit Shell Debug Options Window Help
Python 3.11.3 (tags/v3.11.3:f3909b8, Apr 4 2023, 23:49:59) [MSC v.1934 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:\Users\edwin\AppData\Local\Programs\Python\Python311\interview questions.py
InvoiceNO Stockcode Description ... Unitpricein£ CustomerID Country
0 602395 68945 iphone6SE ... 5250£ 10125 INDIA
1 C20395 43020 iphoneX ... 6025£ 40310 NEWZEALAND
2 732198 90010 iphone11pro ... 8220£ 18801 AUSTRALIA
3 700129 10101 iphone11proMAX ... 8510£ 52802 NEPAL
4 C52136 82522 iphone12 ... 7025£ 95987 AFGHANISTHAN

[5 rows x 8 columns]
>>>

```