You are doing exploratory data analysis of univariant features. Which plot/diagram will give you a clear idea if the data has any outliers?

- ○ Bar plot
- ◉ Scatter plot
- ○ Pair plot
- ○ Boxplot

Clear Response

Data slicing is an important part of data mining and feature extraction. If you are given numerical data and asked to slice the data from a specific index to a certain point, which code snippet will be appropriate for this task?

```
import numpy as np

data = [ 8, 5, 1, 15, 1, 17, 1, 2, 7, 5 ]
rearrange = your code for {sliced_array}
print("Original Array: \n", array)
print("\n Reshaped Array: \n", rearrange)
Give Array:
Original Array: [ 8 5 1 15 1 17 1 2 7 5 ]

Expected Outcome:
Sliced Array: [1 15 1 17 1 2]
```

- ○ sliced_array = data[2:8]
- ○ sliced_array = data[3:8]
- ○ sliced_array = data[4:8]
- ○ sliced_array=data[2:7]

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Order of operations plays a vital role in programming. Keeping in mind the logic and Python syntax, how will you write the code of the given expression in Python?

Expression: -4^2+4

```
import numpy as np
[add your code here]
```

- ○ (-4**2) + 4
- ○ ((-4)**2) + 4
- ○ ((-4)*2) + 4
- ○ All are correct

Which command is used to print a text at a specified location on the plot area?

- ○ plt.title()
- ○ plt.legend()
- ○ plt.label()
- ○ plt.annotate()

You are asked to sort the employees' database based on the employees' salary in the ascending order. Which code snippet in your opinion is the correct one for this task?

Normal outcome

	Employee_Name	Salary
0	Harold	23000
1	Ramond	15540
2	Ahmed	23100
3	Sarah	13222
4	Ram	32290
5	Michelle	14350

sorted by salary

	Employee_Name	Salary
3	Sarah	13222
5	Michelle	14350
1	Ramond	15540
0	Harold	23000
2	Ahmed	23100
4	Ram	32290

```
import pandas as pd
employees = {'Harold' : 23000, 'Ramond' : 15540,'Ahmed': 23100,
'Sarah': 43222, 'Ram' : 32290, 'Michelle': 14350}

data = pd.DataFrame()
data['Employee_Name'] = list(employees.keys())
data['Salary'] = list(employees.values())
```

- data.sort_values(by='Salary', ascending='True')
- data.sort_values(by='Salary', ascending='False')
- data.sort_values(by='Salary')
- all of the above

You want to open a txt file in Python. Which mode (?) would you select for it.

```
with open(file_outpath, '?') as a file
```

- w
- r
- e
- f

You have been asked to do certain calculations based on the employees' dataset given below:

```
dataframe = {'Employee_Name' ['Ahmed', 'Sarah', 'RicHard', 'Arnold', 'Ram','Harold', 'Ramond'],
'Salary' [23100, 13222, 34512, 33211, 32290,23000, 15540],
'Year_born' [1982,1990,1979,1974,1999,2001,1985] }
record = pd.DataFrame(data = dataframe, columns = ['Employee_Name','Salary','Year_born'])
xxxxxxxxx [add your code here]
```

Calculate the age of the employees in 2019 using the above given data:

	Employee_Name	Salary	Year_born
0	Ahmed	23100	1982
1	Sarah	13222	1990
2	Richard	34512	1979
3	Arnold	33211	1974
4	Ram	32290	1999
5	Harold	23000	2001
6	Ramond	15540	1985

Desired Output →

	Employee_Name	Salary	Year_born	age
0	Ahmed	23100	1982	37
1	Sarah	13222	1990	29
2	Richard	34512	1979	40
3	Arnold	33211	1974	45
4	Ram	32290	1999	20
5	Harold	23000	2001	18
6	Ramond	15540	1985	34

- 2019 - record['Year_born']
- pd.to_datetime('today') - record['Year_born']
- pd.to_date('today') - record['Year_born']
- record['Year_born'] = 2019

There is a special name for these type of functions. Mentioned below

```
def more(x):
  if x >4:
    return more(x/2)
  else:
    return x
```

What are these types of functions called?

- Regular function
- Recursive function
- Immutable function
- Mutable function

A variable named "savings" is set to the value of 200. What is the effect of executing the below statement?

```
savings *= 4
```