

## Advantage(s) of using Pandas?

- 1. The same data structures handle both time series data and non-time series data
- 2. Merge and other relational operations found in popular database systems
- 3. Flexible handling of missing data
- 4. All of the options

The following table is sorted, which command is used for this?

	ID	Name	Course	Fee	A	B	C
4	5	Ali	CNC	3000.0	54	4	83
3	4	Kashif	AIOT	NaN	56	74	87
2	3	Hamza	A.I	3000.0	67	26	30
1	2	Asif	A.I	1500.0	57	11	42
0	1	Ali	CNC	1500.0	68	30	93

1. df.sort\_index ( axis = 0, ascending = False )

2. df.sort\_index ( axis = 1, ascending = False )

3. df.sort\_values ( "ID", ascending = True )

Series s1 is as follows:

Ohio 35000  
Oregon 16000  
Texas 71000  
Utah 5000

Series s2 is as follows:

California NaN  
Ohio 35000  
Oregon 16000  
Texas 71000

What will be the result of s1 + s2

1. California NaN  
Ohio 70000  
Oregon 32000  
Texas 142000  
Utah NaN

2. California NaN  
Ohio 70000



# After

4	5	Ali	CNC	3000.0
0	1	Ali	CNC	1500.0
1	2	Asif	A.I	1600.0
2	3	Hamza	A.I	3000.0
3	4	Kashif	AIOT	NaN

- 1. df.sort\_values (["Course", "Name"] , ascending = [True, False ])
- 2. df.sort\_values (["Name", "ID"] , ascending = [True, False ])
- 3. df.sort\_values (["Name", "Course", "ID"] , ascending = [True, True , False])
- 4. df.sort\_values ([ Course", "Fee"] , ascending = [True, True ])



obj:

d 6  
b 7  
a -5  
c 3

What will be output of following command?

print(obj[obj > 0])

1. d True  
 b True  
 a False  
 c True

2. None of the options

3. d 6  
 b 7  
 c 3

4. d 0  
 b 0  
 a 0  
 c 0

	year	state	pop	debt
one	2000	Ohio	1.6	15
two	2001	Ohio	1.7	15
three	2002	Ohio	3.6	15
four	2001	Nevada	2.4	15
five	2002	Nevada	2.9	15

How 'debt' column will change with following command?

d\_frame['debt'] = np.arange(5.)

1. debt  
5  
5  
5  
5  
5

2. debt  
1  
2  
3  
4  
5

3. debt  
0  
1  
2  
3  
4

```
index=['Ohio', 'Colorado', 'Utah', 'New York'],
columns=['one', 'two', 'three', 'four'])
```

Which command will be used to get following output?

	three	one
Ohio	2	0
Colorado	6	4
Utah	10	8
New York	14	12

- 1. data['Ohio', 'Colorado', 'Utah', 'New York']
- 2. data[['three', 'one']]
- 3. data.index['Ohio', 'Colorado', 'Utah', 'New York']
- 4. data['three', 'one']

```
frame = DataFrame(np.arange(8).reshape((2, 4)), index=['three', 'one'], columns=['d', 'c', 'b', 'a'])
frame = frame.sort_index(axis=1)
```

What will be value of frame after running this snippet?

1.

		d	c	b	a
	one	4	7	6	5
	three	0	3	2	1

2.

		d	c	b	a
	three	0	3	2	1
	one	4	7	6	5

3.

		d	a	b	c
	one	4	5	6	7
	three	0	1	2	3

4.

		a	b	c	d
	three	1	2	3	0
	one	5	6	7	4

What will this command do?

`df.sort_index(ascending=True, axis=1)`

- 1. Sort table with respect to lower to higher index values of columns
- 2. Sort table with respect to lower to higher values
- 3. Sort table with respect to lower to higher index values of rows
- 4. Sort table with respect to higher to lower index values of rows

There is a dataframe named 'obj'. What does the following command do?

obj.ix[:, val]

- 1. Selects single row or subset of rows from the DataFrame
- 2. Selects single column or subset of columns
- 3. Select both rows and columns
- 4. None of the options

In Pandas, List of lists or tuples are Treated as the “2D ndarray” case.

- 1. True
- 2. False

Question : 27 of 40

Which class is Specialized index for integer values?

1. PeriodIndex

2. Index

3. Int64Index

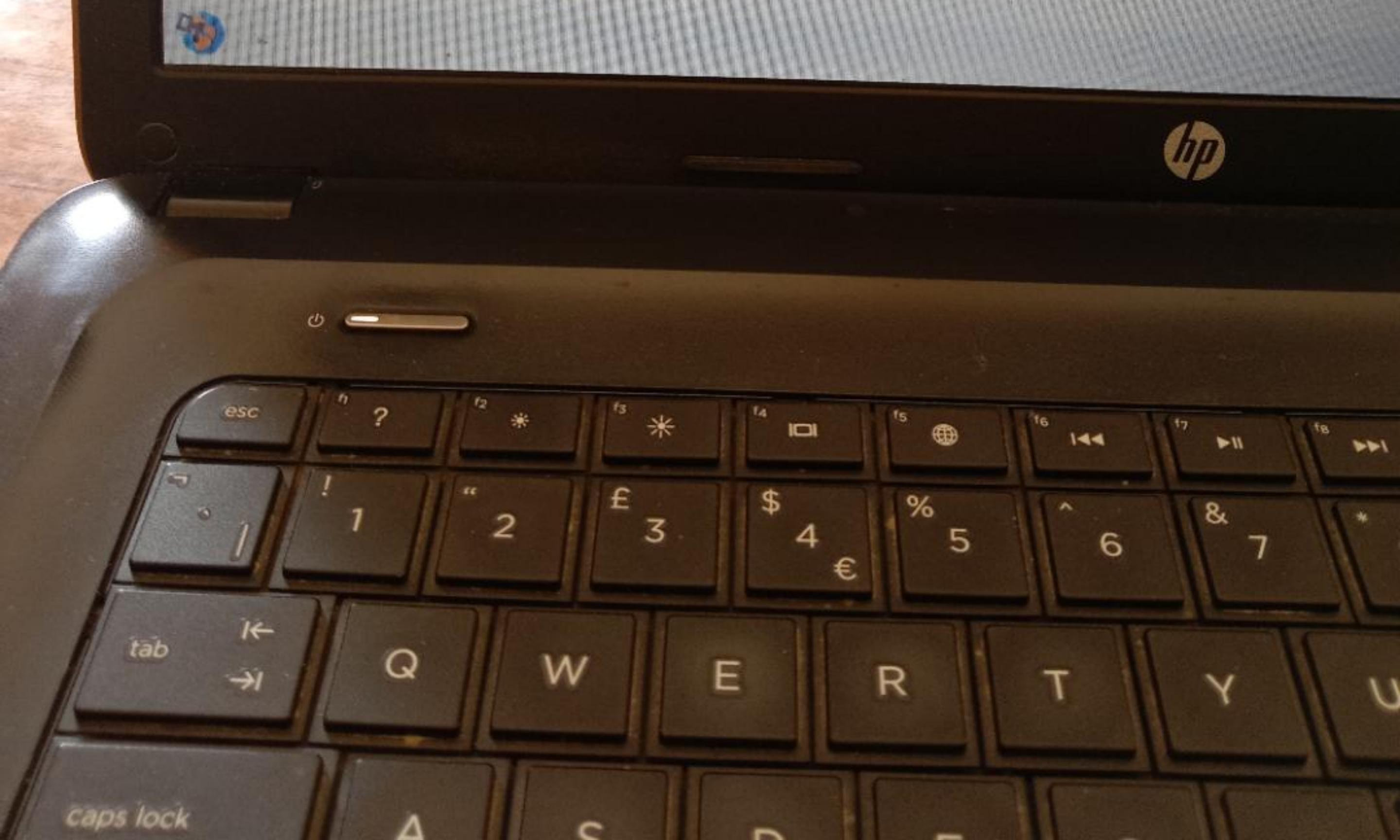
4. MultiIndex



Question : 28 of 40

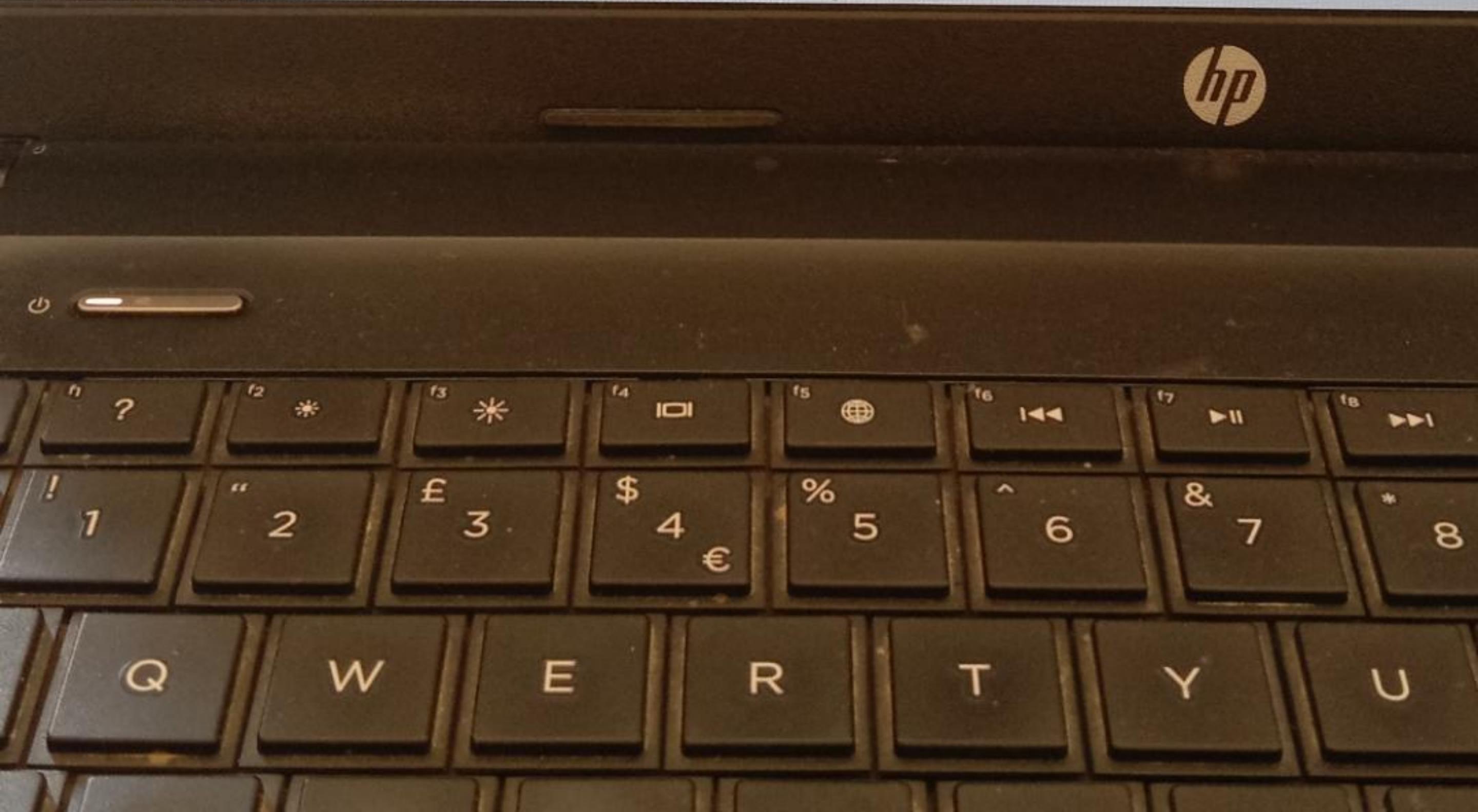
What is the function of 'delete' command?

- 1. Compute new index by deleting passed values
- 2. Compute the array of unique values in the Index
- 3. Compute new Index with element at index i deleted
- 4. Compute new Index by inserting element at index i



The column returned when indexing a DataFrame is a view on the underlying data, not a copy. Thus, any DataFrame.

- 1. True
- 2. False



```
obj = Series(['blue', 'purple', 'yellow'], index=[0, 2, 4])  
obj = obj.reindex(range(6), method='ffill')
```

What will be value of obj after running this snippet?

1. 0 blue  
1 purple  
2 yellow  
3 blue  
4 purple  
5 yellow

2. 0 blue  
1 purple  
2 yellow

3. 0 blue  
2 purple  
4 yellow

4. 0 blue  
1 blue  
2 purple  
3 purple  
4 yellow  
5 yellow



What will be output variable value in following snippet?

```
sdata = {'Ohio': 35000, 'Texas': 71000, 'Oregon': 16000, 'Utah': 5000}  
states = ['California', 'Ohio', 'Oregon', 'Texas']  
f_data = Series(sdata, index=states)  
f_data = ?
```

1. Error

2. Ohio 35000  
Texas 71000  
Oregon 16000  
Utah NaN

3. Ohio 35000  
Texas 71000  
Oregon 16000  
California NaN

4. California NaN  
Ohio 35000  
Oregon 16000  
Texas 71000

If data is an ndarray, index must be the same length as data.

- 1. True
- 2. False

## Question : 18 of 40

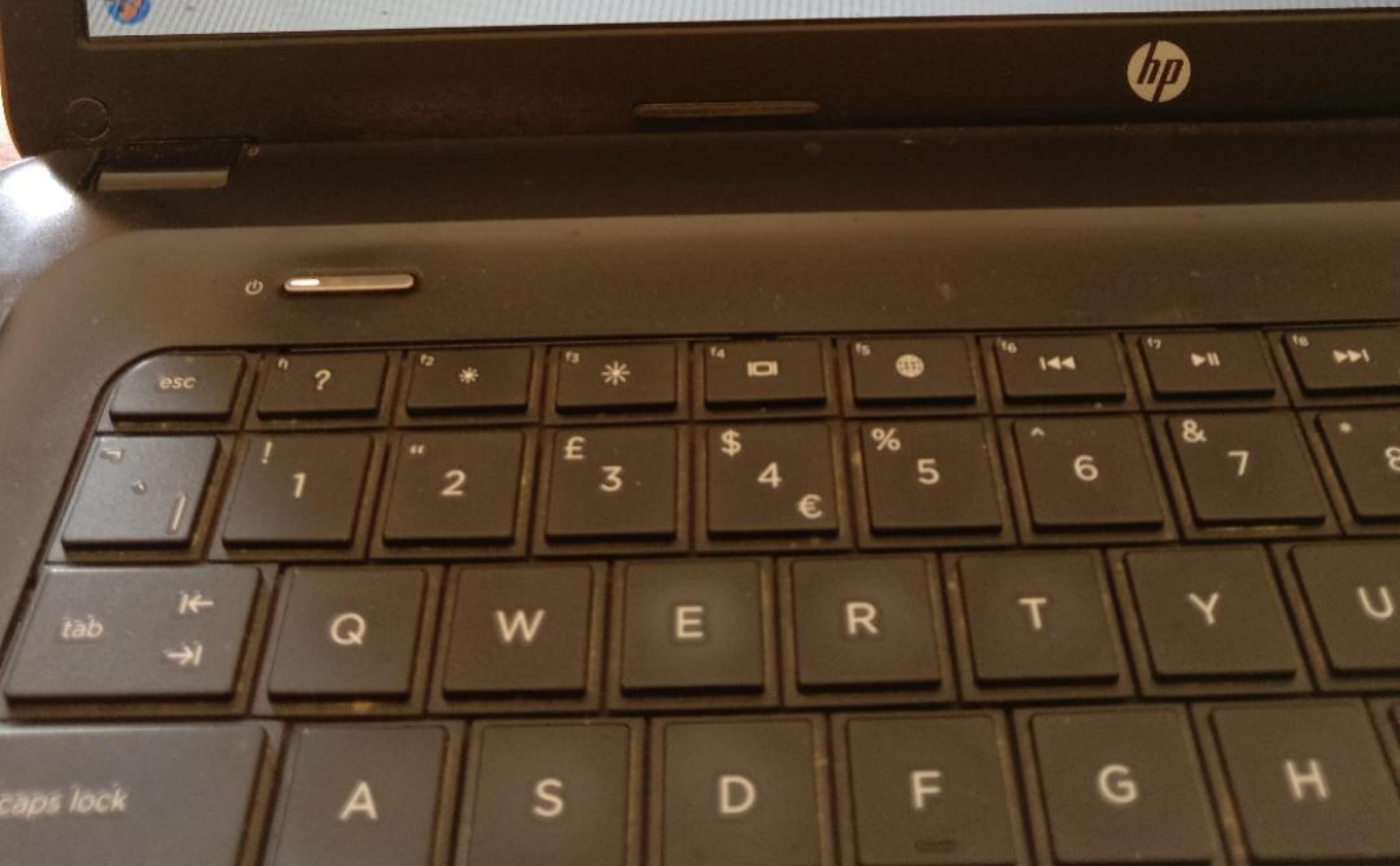
Minimum number of arguments we require to pass in pandas series?

1. 0

2. 2

3. 3

4. 1



What is the function of 'drop' command?

- 1. Compute new Index with element at index i deleted
- 2. Compute the array of unique values in the Index
- 3. Compute new index by deleting passed values
- 4. Compute new Index by inserting element at index i

'Concatenate with additional Index objects, producing a new Index'

Which function performs this functionality?

- 1. append
- 2. concat
- 3. join
- 4. concatenate

**Quiz : AIC Quiz 5 Pandas****Question : 17 of 40**

In Pandas, we can save data using:

- 1. to\_feather
- 2. to\_pickle
- 3. All of the options
- 4. to\_csv

Question : 16 of 40

'is\_unique' computes the array of unique values in the Index.

1. True

2. False



K2

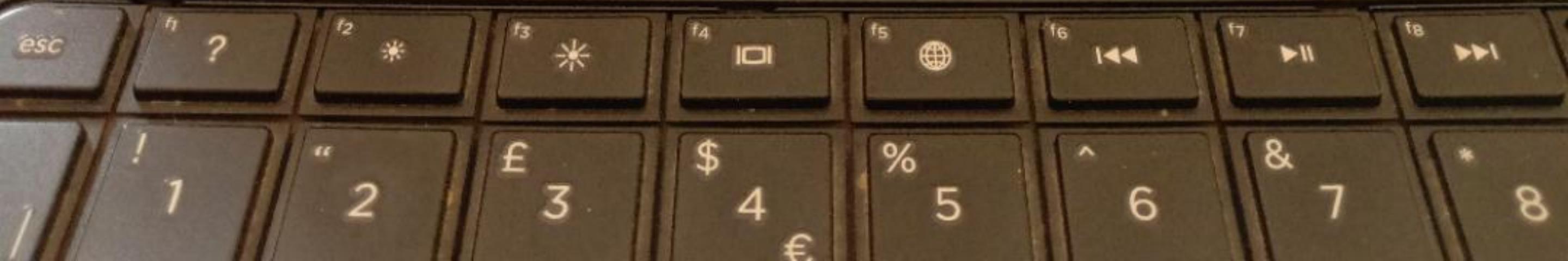
Quiz : AIC Quiz 5 Pandas

Question : 12 of 40

'notnull' function returns like-type object containing Boolean values indicating which values are missing / NA.

1. True

2. False



```
frame = DataFrame(np.arange(8).reshape((2, 4)), index=['three', 'one'], columns=['d', 'a', 'b', 'c'])
frame = frame.sort_index()
```

What will be value of frame after running this snippet?

1

		d	c	b	a
	one	4	7	6	5
	three	0	3	2	1

2

		a	b	c	d
	three	1	2	3	0
	one	5	6	7	4

3

		d	a	b	c
	one	4	5	6	7
	three	0	1	2	3

4

		d	c	b	a
	three	0	3	2	1
	one	4	7	6	5



Assume that you are given two lists:

a = [1,2,3]

b = [4,5,6]

Your task is to create a list which contains all the elements of a and b in a single dimension. Output

a = [1,2,3,4,5,6]

Which of the following functions will you use?

1. b.append(a)

2. a.extend(b)

3. a.append(b)

4. b.extend(a)



```
data = DataFrame([[1., 6.5, 3.], [1., NA, NA], [NA, NA, NA], [NA, 6.5, 3.]])  
data = data.dropna(how='all')
```

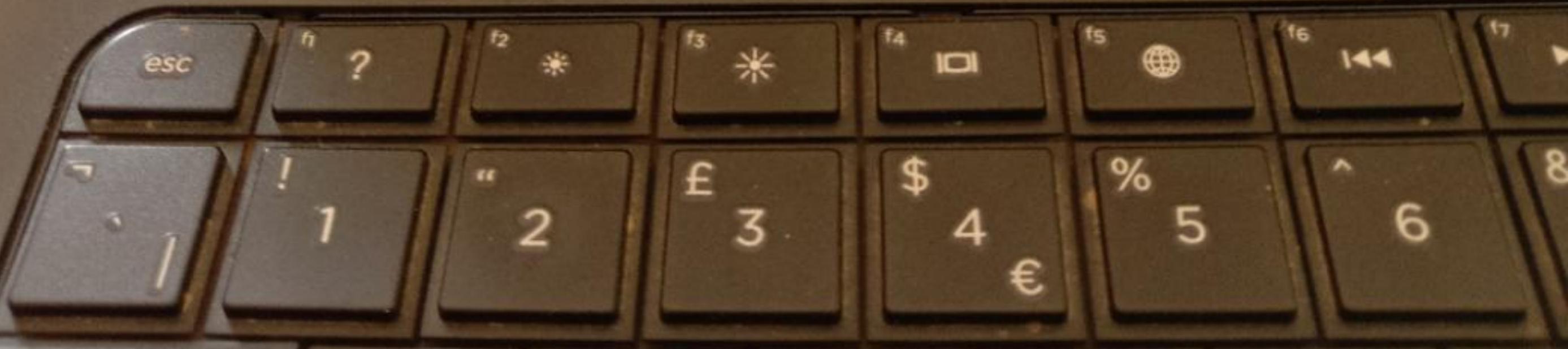
what will be value of data after running this snippet?

	0	1	2	3
0	1	6.5	3	NaN
1	1	NaN	NaN	NaN
2	NaN	NaN	NaN	NaN
3	NaN	6.5	3	NaN

	0	1	2
0	1	6.5	3
1	1	NaN	NaN
3	NaN	6.5	3

	0	1	2
0	1	6.5	3
1	1	NaN	NaN
2	NaN	NaN	NaN

0      1      2



## Question : 9 of 40

Which command will be used to join two dataframes with respect to common 'X' column?

- 1. df1.merge(df2, on="X", how="intersection")
- 2. df1.merge(df2, on="X", how="common")
- 3. df1.merge(df2, on="X", how="inner")
- 4. df1.merge(df2, how="inner")



**Question : 10 of 40**

`s1 = pd.Series([1,2,3,4,5])`

`s2 = pd.Series((1,2,3,4,5))`

Which of the following option is correct?

- 1. Both arguments are tuple
- 2. Argument of s1 is tuple, s2 is list
- 3. Both arguments are list
- 4. Argument of s1 is list, s2 is tuple

Question : 8 of 40

```
data = DataFrame([[1., 6.5, 3.], [1., NA, NA], [NA, NA, NA], [NA, 6.5, 3.]])  
data = data.dropna(axis=1, how='all')
```

what will be value of data after running this snippet?

1.

	0	1	2
0	1	6.5	3
1	1	NaN	NaN
2	NaN	NaN	NaN
3	NaN	6.5	3

2.

	0	1	2
0	1	6.5	3
1	1	NaN	NaN
2	NaN	NaN	NaN

3.

	0	1	2	3
0	1	6.5	3	NaN
1	1	NaN	NaN	NaN
2	NaN	NaN	NaN	NaN
3	NaN	6.5	3	NaN



```
frame = DataFrame([{"a": [0, 1, 0, 1], "b": [4, 7, -3, 2]}])
frame = frame.sort_values(by="b")
```

What will be value of frame after running this snippet?

1.

	a	b
2	0	-3
3	1	2
1	1	7
0	0	4

2.

	b	a
2	-3	0
3	2	1
0	4	0
1	7	1

3.

	a	b
2	0	-3
0	0	4
3	1	2
1	1	7

4.

	a	b
2	0	-3
3	1	2
0	0	4
1	1	7



Question : 7 of 40

This command will concatenate with respect to rows

`pd.concat([df1, df2], axis=1)`

1. True

2. False

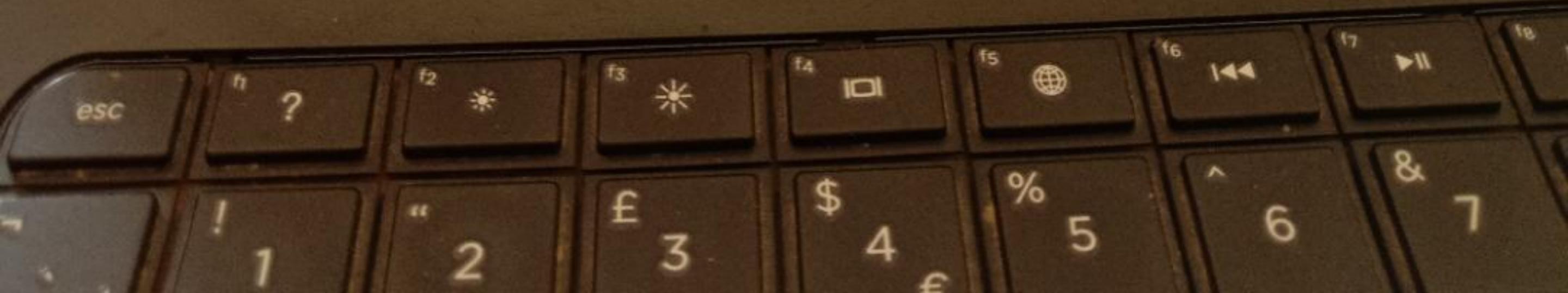


Question : 5 of 40

While DataFrame stores the data internally in a two-dimensional format, you can easily represent much higher dimensional data using indexin

1. True

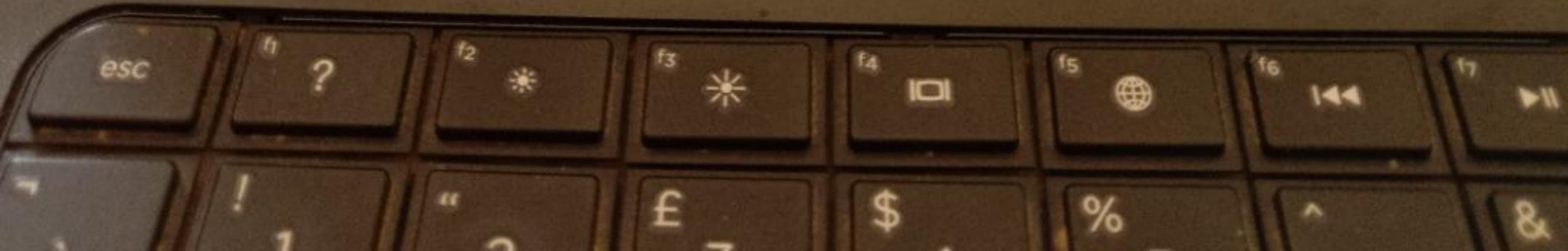
2. False



Question : 4 of 40

Which of the following thing can be data in Pandas?

- 1. All of the options
- 2. an ndarray
- 3. a python dict
- 4. a scalar value



**Quiz : AIC Quiz 5 Pandas**

**Question : 3 of 40**

'copy' function copies underlying data if new index is equivalent to old index.

1. True

2. False



**Quiz : AIC Quiz 5 Pandas**

**Question : 1 of 40**

For data wrangling, which command will be used?

- 1. df.join()
- 2. df.merge()
- 3. All of the options
- 4. pd.concat()



What will this command do?

`df.sort_index(ascending=False, axis=0)`

- 1. Sort table with respect to higher to lower index values of rows
- 2. Sort table with respect to lower to higher index values of rows
- 3. Sort table with respect to lower to higher index values of columns
- 4. Sort table with respect to lower to higher values

