Exam completed on: December 6, 2021   Score: 75% · 18/24

Exam questions   ● Show all   ○ Show wrong only

✓ Question 1 of 24

If `Trees=['elm','oak','poplar','plum','pine']` , what is the   ⌄
value of `Trees[-3]` ?

```
      'elm'
```

```
      'oak'
```

✓   `'poplar'`

```
      'plum'
```

✓ Question 2 of 24

How would you obtain the individual dimensions of the array named   ⌄
`testarray` ?

✓   `testarray.shape`

```
      testarray.ndim
```

```
      testarray.dtype
```

```
        testarray.size
```

✓   Question 3 of 24

      What does "palindrome"[::-2] return?

      'mrnlp'

      ✓   'eodia'

      'aidoe'

      'emordnilap'

✓   Question 4 of 24
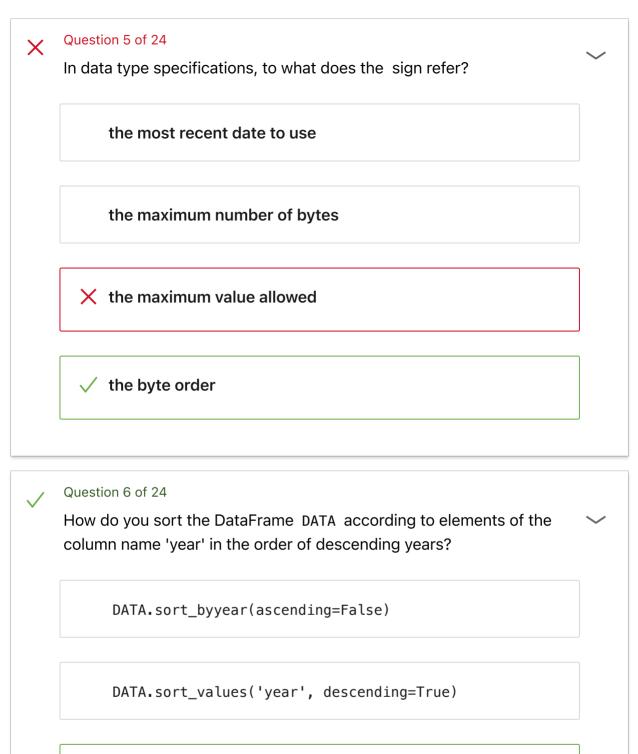
      If df is a DataFrame that includes a column 'x', what is NOT a way to
      add a new column 'y', using a function 'f' that applies a
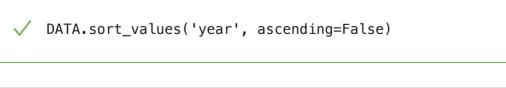   transformation?

      ✓   df.y = f(df.x)

      df['y'] = None; df.y = f(df.x)

      df['y'] = f(df['x'])

      df = df.assign(y = f(df.x))

Question 5 of 24

✗

In data type specifications, to what does the sign refer?

the most recent date to use

the maximum number of bytes

✗ the maximum value allowed

✓ the byte order

Question 6 of 24

✓

How do you sort the DataFrame `DATA` according to elements of the column name 'year' in the order of descending years?

```
DATA.sort_byyear(ascending=False)
```

```
DATA.sort_values('year', descending=True)
```

✓
```
DATA.sort_values('year', ascending=False)
```

```
DATA.sort_values('year', increasing=False)
```

Question 7 of 24

✗

What does `.loc('A','B')` do when applied to a DataFrame with two indices?

two indices:

✓ **It extracts records with indices having the values 'A' and 'B' respectively.**

It returns the number of records having indices with values 'A' and 'B' respectively.

It changes the index values to 'A' and 'B' respectively.

✗ **It returns the record number of records having indices of 'A' and 'B' respectively.**

✗ Question 8 of 24

If we are working with a DataFrame `df` indexed by year, what would `df.loc[1914:1918]` return? ⌄

A DataFrame including all rows with index equal to 1914 or 1918.

✗ **A DataFrame including all rows with index between 1914 and 1918 (excluded), if any.**

✓ **A DataFrame including all rows with index between 1914 and 1918 (included), if any.**

The subset of the index that lies between 1914 and 1918.
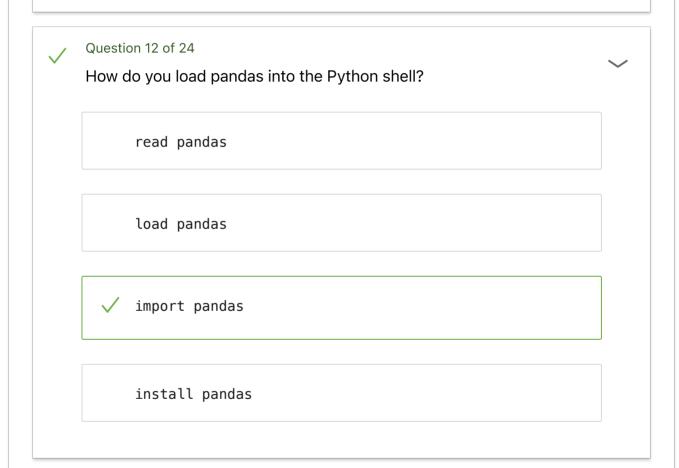
✗ Question 9 of 24

How many different indices may a DataFrame have? ⌄

How many different indices may a DataFrame have?

one

✗ two

✓ more than three

three

Question 10 of 24

If `df` is a DataFrame that includes a column 'year', what does `df.groupby('year') do?`

Returns a Python list of DataFrames, one for each year.

✓ Returns a special Pandas object – a grouped DataFrame – that lets us apply aggregations, such as `sum()` or `max()`, to each group separately.

Returns a numpy array of all the years represented in df.

Returns df sorted by year.

Question 11 of 24

Which generality best describes the pandas dialect of Python?

Extensive use is made of looping to handle each data

element.

Methods are focused on string processing, rather than numeric processing.

NumPy arrays are used extensively.

✓ Statements are formed by concatenating one .method after another.
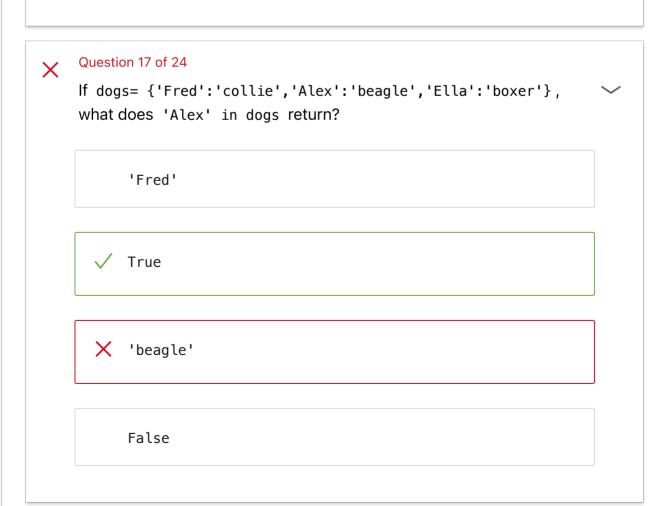

Question 12 of 24

How do you load pandas into the Python shell?

```
read pandas
```

```
load pandas
```

✓
```
import pandas
```

```
install pandas
```

✗ Question 13 of 24

Which code would you use to compute the standard deviation of the values stored in the one-dimensional array `DATA` ?

```
math.sqrt(var(DATA))
```

```
np.stderr('DATA')
```

✓   `math.sqrt(np.var(DATA))`

✗   `np.stdev(DATA)`

✓   **Question 14 of 24**

What does the DataFrame `groupby` operation perform?

✓ **segregation**

summation

indexing

aggregation

✓   **Question 15 of 24**

Which values does `np.linspace(0,6,3)` return?

1, 3, and 5

2, 4, and 6

0, 2, and 4

✓ **0, 3, and 6**

✓ Question 16 of 24

When concatenating methods in Python, the resulting code is more
readable if you _____ .

> make the code as short as possible

> use as many abbreviations as possible

> place all comments at the top of the file

> ✓ place each method on its own line

✗ Question 17 of 24

If `dogs= {'Fred':'collie','Alex':'beagle','Ella':'boxer'}`,
what does `'Alex' in dogs` return?

> `'Fred'`

> ✓ `True`

> ✗ `'beagle'`

> `False`

✓ Question 18 of 24

Jim wants to extend his ability to use Python for data science. Why should he learn pandas? ⌄

It does not need any other packages, such as NumPy.

It is well established, and on version 6.4.

It is a precursor to Python, and gives a good foundation for data analysis.

✓ It is rapidly becoming the most popular method for data analysis using Python.

✓ Question 19 of 24

Which values are generated by `range(4,12,3)` ? ⌄

✓ 4, 7, and 10

3, 6, 9, and 12

5, 8, and 11

0, 3, 6, 9, and 12

✓ Question 20 of 24 ⌄

How would you elevate a column to an index in a DataFrame?

by changing the order of columns in the array used to build the DataFrame

by using the `elevate_column()` method

by reordering the rows of the DataFrame

✓ by using the `set_index()` method

✓ Question 21 of 24

What is the result of `' \n Franklin\n'.strip()` ?

`' Franklin'`

`'\nFranklin'`

✓ `'Franklin'`

`'\nFranklin\n'`

✓ Question 22 of 24

Why is the list constructor commonly used to find an index of an array element?

`.index` returns the array value for a particular index.

The array must be stripped of redundant information.

Arrays are not ordered.

✓   `.index` only works with lists.

Question 23 of 24

There are many options for using Python in the cloud. What should you check if you experience errors with standard syntax?   ⌄

the compression method

✓   the version of the Python kernel being used

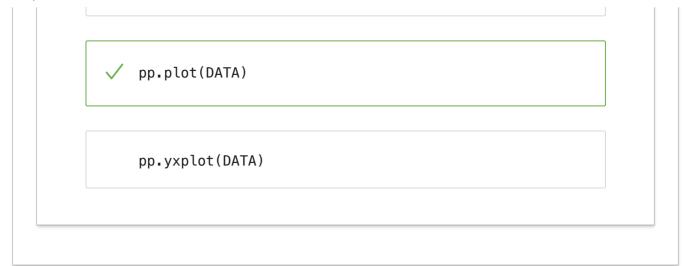the fonts and color schemes for the editor

the version of the exercise files

Question 24 of 24

If `DATA` contains a one-dimensional array, which instruction using `matplotlib.pylot` (imported as `pp`) creates a plot of the array value versus array index?   ⌄

`pp.plotyx(DATA)`

`pp.pyplot(DATA)`

✓ `pp.plot(DATA)`

`pp.yxplot(DATA)`

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