Homework: Python Data Structures Dataframes

Started: Nov 7 at 4:29pm

Quiz Instructions

Walk through the exercises in the attached pdf, select or enter the appropriate answer and describe the action

PY_DS_pandas_dataframe_basic_lectures.pdf
(https://unt.instructure.com/courses/77494/files/18752738/download?download_frd=1)

Question 1 — 1 pts

Enter the output of the following code block:

```
import pandas as pd

df = pd.DataFrame()
print(df)
```

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12pt Preformatted

```
Empty DataFrame
Columns: []
Index: []
```

pre 4 words

Question 2

1 pts

Describe the action being executed by the former code block:

Edit View Insert Format Tools Table

12pt Paragraph

First line is telling python to bring the pandas library as "pd". This is the standard way to reference pandas. This means that we will now reference this library in our code as pd.function.

Second line sets variable "df" as a dataframe with no data , index or columns.

Third line actions to print our dataframe "df" which in this case has no data so the number of columns and index is blank/0.

p 73 words

Question 3

1 pts

Enter the output of the following code block:

```
import pandas as pd

aList = [1,2,3,4,5]

df = pd.DataFrame(aList)

print(df)
```

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12pt Preformatted

```
   0
0  1
1  2
2  3
3  4
4  5
```

pre 11 words

Question 4

1 pts

Describe the action being executed by the former code block:

Edit View Insert Format Tools Table

12pt Paragraph

First line is telling python to bring the pandas library as "pd". This is the standard way to reference pandas. This means that we will now reference this library in our code as pd.function.

Second line we identify out variable aList as a list "[1,2,3,4,5]".

We then call our dataframe "df" using our variable "alist"

Finally we ask python to print our dataframe df.

our first column will have the value 1 which in this case is 0 because python

p ▸ span 84 words

Question 5 1 pts

Enter the output of the following code block:

```
import pandas as pd
aListOfLists = [['Alex' ,10],['Bob' ,12],['Clarke' ,13]]
df = pd.DataFrame(aListOfLists, columns=['Name','Age'])
print(df)
```

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12pt Paragraph

p 0 words

Question 6

1 pts

Describe the action being executed by the former code block:

Edit View Insert Format Tools Table

12pt Paragraph

p 0 words

Question 7

1 pts

Enter the output of the following code block:

```
import pandas as pd
aDict = {'Name':['Tom', 'Jack', 'Steve', 'Ricky'],'Age':[28,34,29,42]}
df = pd.DataFrame(aDict)
print(df)
```

Question 8

1 pts

Describe the action being executed by the former code block:

Question 9

1 pts

Enter the output of the following code block:

```
import pandas as pd
aDict = {'Name':['Tom', 'Jack', 'Steve', 'Ricky'], 'Age':[28,34,29,42]}
df = pd.DataFrame(aDict, index=['rank','rank2','rank3','rank4'])
print(df)
```

Question 10

1 pts

Describe the action being executed by the former code block:

Question 11

1 pts

Enter the output of the following code block:

```
import pandas as pd

aDictOfSeries = {'one' : pd.Series([1, 2, 3], index=['a', 'b', 'c']),
'two' : pd.Series([1, 2, 3, 4], index=['a', 'b', 'c', 'd'])}

df = pd.DataFrame(aDictOfSeries)

print(df)
```

Question 12

1 pts

Describe the action being executed by the former code block:

Question 13

1 pts

Enter the output of the following code block:

```
import pandas as pd

aDictOfSeries = {'one' : pd.Series([1, 2, 3], index=['a', 'b', 'c']),
'two' : pd.Series([1, 2, 3, 4], index=['a', 'b', 'c', 'd'])}
```

```
df = pd.DataFrame(aDictOfSeries)

print(df['one'])
```

Question 14

1 pts

Describe the action being executed by the former code block:

Question 15

1 pts

Enter the output of the following code block:

```
import pandas as pd

aDictOfSeries = {'one' : pd.Series([1, 2, 3], index=['a', 'b', 'c' ]),
'two' : pd.Series([1, 2, 3, 4, ], index=['a', 'b', 'c', 'd'])}

df = pd.DataFrame(aDictOfSeries)

df['three']=pd.Series([10,20,30],index=['a','b','c'])

print(df)

df['fout'] = df['one'] + df['three']

print('\n')
print(df)
```

Question 16

1 pts

Describe the action being executed by the former code block:

Question 17

1 pts

Enter the output of the following code block:

```
import pandas as pd

aDictOfSeries = {'one' : pd.Series([1, 2, 3], index=['a', 'b', 'c']),
'two' : pd.Series([1, 2, 3, 4], index=['a', 'b', 'c', 'd']),
'three' : pd.Series([10,20,30], index=['a', 'b', 'c'])}
```

```
df = pd.DataFrame(aDictOfSeries)
print(df)
print('\n')

del(df['one'])
print(df)
print('\n')

df.pop('two')
print(df)
```

Question 18

1 pts

Describe the action being executed by the former code block:

Question 19

1 pts

Enter the output of the following code block:

```
import pandas as pd

aDictOfSeries = {'one' : pd.Series([1, 2, 3], index=['a', 'b', 'c']),
'two' : pd.Series([1, 2, 3, 4], index=['a', 'b', 'c', 'd'])}

df = pd.DataFrame(aDictOfSeries)

print(df.loc['b'])
```

Question 20

1 pts

Describe the action being executed by the former code block:

Question 21

1 pts

Enter the output of the following code block:

```
import pandas as pd

aDictOfSeries = {'one' : pd.Series([1, 2, 3], index=['a', 'b', 'c']),
'two' : pd.Series([1, 2, 3, 4], index=['a', 'b', 'c', 'd'])}

df = pd.DataFrame(aDictOfSeries)
```

```
print(df[2:4])
```

Question 22

1 pts

Describe the action being executed by the former code block:

Question 23

1 pts

Enter the output of the following code block:

```
import pandas as pd

df = pd.DataFrame([[1,2], [3,4]], columns = ['a','b'])
df2 = pd.DataFrame([[5,6], [7, 8]], columns = ['a','b'])

df = df.append(df2)

print(df)
```

Question 24

1 pts

Describe the action being executed by the former code block:

Question 25

1 pts

Enter the output of the following code block:

```
import pandas as pd

df = pd.DataFrame([[1, 2],[3, 4]], columns = ['a','b'])
df2 = pd.DataFrame([[5, 6], [7, 8]], columns = ['a','b'])

df = df.append(df2)

df = df.drop(0)

print(df)
```

Question 26

1 pts

Describe the action being executed by the former code block:

Question 27

14 pts

Upload the **Jupyter Notebook code file (saved as pdf, word or html)** associated with this exercise

Upload Choose a File

No new data to save. Last checked at 5:24pm Submit Quiz