Quiz 2
Graded Quiz • 30 min

Due Apr 26, 1:59 AM CDT

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TO PASS 80% or higher

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Quiz 2

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1. For the following code, which of the following statements will **not** return True?

1 / 1 point

```python
import pandas as pd
sdata = {'Ohio': 35000, 'Texas': 71000, 'Oregon': 16000, 'Utah': 5000}
obj1 = pd.Series(sdata)
states = ['California', 'Ohio', 'Oregon', 'Texas']
obj2 = pd.Series(sdata, index=states)
obj3 = pd.isnull(obj2)
```

```python
import math
math.isnan(obj2['California'])
```

```python
obj3['California']
```

[✓]
```python
obj2['California'] == None
```

```python
x = obj2['California']
obj2['California'] != x
```

Correct
The value of obj2['California'] is nan which is not the same as None, so this will return False

2.

1 / 1 point

```python
import pandas as pd
d = {'1': 'Alice','2': 'Bob','3': 'Rita','4': 'Molly','5': 'Ryan'}
S = pd.Series(d)
```

In the above python code, the keys of the dictionary **d** represent student ranks and the value for each key is a student name. Which of the following can be used to extract rows with student ranks that are lower than 3?

- S.iloc[0:2]
- [✓ S.iloc[0:3]]
- S.loc[0:2]
- S.loc[0:3]

Correct
S.iloc[i:j] can be used to retrieve Series rows from indices i to j-1

3. Suppose we have a DataFrame named **df**. We want to change the original DataFrame **df** in a way that all the column names are cast to upper case. Which of the following expressions is **incorrect** to perform the same?

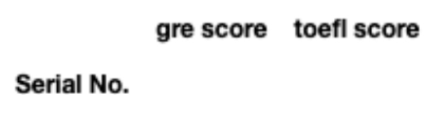
1 / 1 point

- df = df.rename(mapper = lambda x: x.upper(), axis = 1)
- df = df.rename(mapper = lambda x: x.upper(), axis = 'column')
- [✓ df.rename(mapper = lambda x: x.upper(), axis = 1)]
- df.rename(mapper = lambda x: x.upper(), axis = 1, inplace = True)

Correct
This is incorrect because the rename method will return a new DataFrame by default. We have to pass the result to our original DataFrame **df** or set the inplace parameter to 'True'.

4.

1 / 1 point


gre score toefl score
Serial No.

1	337	118
2	324	107
3	316	104
4	322	110
5	314	103

For the given DataFrame **df** we want to keep only the records with a **toefl score** greater than 105. Which of the following will **not** work?

- All of these will work
- df.where(df['toefl score'] > 105).dropna()
- df[df['toefl score'] > 105]
- [✓ df.where(df['toefl score'] > 105)]

Correct
This will not work as **df.where()** will not drop any data we don't want, it will just set their values to **nan**.

5. Which of the following can be used to create a DataFrame in Pandas?

1 / 1 point

- 2D ndarray
- [✓ All of these work]
- Pandas Series object
- Python dict

Correct
All of these can be used to create a DataFrame in Pandas

6. Which of the following is an **incorrect** way to **drop** entries from the Pandas DataFrame named **df** shown below?

1 / 1 point

	one	two	three	four
Ohio	0	1	2	3
Colorado	4	5	6	7
Utah	8	9	10	11
New York	12	13	14	15

- df.drop('one', axis = 1)
- df.drop('Ohio')
- [✓ df.drop('two')]
- df.drop(['Utah', 'Colorado'])

Correct
This is an incorrect way to drop values from the column named 'two' because the axis has not been specified as 1 (representing 'columns') and the default value of axis is 0. It would yield the following error: KeyError: '['two'] not found in axis'.

7. For the Series **s1** and **s2** defined below, which of the following statements **will give an error**?

1 / 1 point

```python
import pandas as pd
s1 = pd.Series({1: 'Alice', 2: 'Jack', 3: 'Molly'})
s2 = pd.Series({'Alice': 1, 'Jack': 2, 'Molly': 3})
```

- [✓ s2.loc[1]]
- s2.iloc[1]
- s1.loc[1]
- s2[1]

✓ **Correct**
There is no index of value 1 in s2, hence this will give an error.

8. Which of the following statements is **incorrect**?

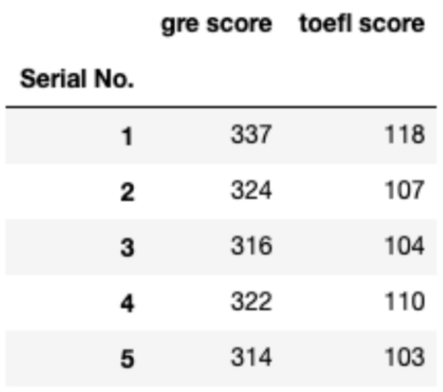
1 / 1 point

- If **s** and **s1** are two pd.Series objects, we cannot use **s.append(s1)** to directly append **s1** to the existing series **s**
- If **s** is a **pd.Series** object, then we can use **s.loc[label]** to get all data where the index is equal to label.
- [✓ **loc** and **iloc** are two useful and commonly used Pandas methods.]
- We can use **s.iteritems()** on a **pd.Series** object **s** to iterate on it.

✓ **Correct**
loc and iloc are attributes of pandas. Series object, not methods.

9.

1 / 1 point



	gre score	toefl score
Serial No.		
1	337	118
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For the given DataFrame **df** shown above, we want to get all records with a **toefl score** greater than 105 but smaller than 115. Which of the following expressions is **incorrect** to perform the same?

- df[(df['toefl'].isin(range(106, 115)))]
- df[df['toefl score'].gt(105) & df['toefl score'].lt(115)]
- [✓ (df['toefl score'] > 105) & (df['toefl score'] < 115)]
- df[(df['toefl score'] > 105) & (df['toefl score'] < 115)]

✓ **Correct**
This will just return a boolean mask of True's and False's instead of filtering the correct rows.

10. Which of the following is the correct way to extract all information related to the student named **Alice** from the DataFrame **df** given below:

1 / 1 point

(Major)	Name	Age	Gender
Mathematics	Alice	20	F
Sociology	Jack	22	M

- df['Alice']
- df.iloc['Mathematics']
- [✓ df.T['Mathematics']]
- df['Mathematics']

✓ **Correct**
This will correctly extract Alice's data as 'Mathematics' would be a column in df.T and column names can be passed as a key to retrieve the contents of the entire column, i.e. Alice's information in this case