Machine Learning With Python

Scholarship Test

Email address *

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earnings = [[[500,505,490], [810,450,678], [234,897,430], [560,1023,640]], [[600,605,490], [345,900,1000], [780,730,710], [670,540,324]]] What is the shape of given matrix?   2 points

_____

Change the age in row 'f' to 1.5.   2 points

○ df.loc[: , 'age'] = 1.5

○ df.iloc['f', 'age'] = 1.5

○ df.loc['f', 'age'] = 1.5

○ None of the above

import numpy as np a = np.arange(10) print a[2:] What is the output?

2 points

○ [2 3 4 5 6 7 8 9 10]

○ [3 4 5 6 7 8 9]

○ [2 3 4 5 6 7]

○ [2 3 4 5 6 7 8 9]

import pandas as pd data = {'animal': ['cat', 'cat', 'snake', 'dog', 'dog', 'cat', 'snake', 'cat', 'dog', 'dog'], 'age': [2.5, 3, 0.5, np.nan, 5, 2, 4.5, np.nan, 7, 3], 'visits': [1, 3, 2, 3, 2, 3, 1, 1, 2, 1], 'priority': ['yes', 'yes', 'no', 'yes', 'no', 'no', 'no', 'yes', 'no', 'no']} labels = ['a', 'b', 'c', 'd', 'e', 'f', 'g', 'h', 'i', 'j'] Create a DataFrame df from this dictionary data which has the index labels.

2 points

....

Suppose list1 is [2, 33, 222, 14, 25], What is list1[-2] ?

1 point

○ 33

○ 2

○ 222

○ 25

○ none of the above

Return the first 3 rows of the DataFrame df

2 points

....

What is the output of the following? x = ['ab', 'cd'] for i in x: 2 points
x.append(i.upper()) print(x) Assume Indentation is correct

○ ['AB', 'CD']

○ ['ab', 'cd', 'AB', 'CD']

○ Option 3

○ none of the mentioned

Count the number of each type of animal in df.   2 points

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Which of the following is not the correct syntax for creating   1 point
a set?

○ set([[1,2],[3,4]])

○ set([1,2,2,3,4])

○ set((1,2,3,4))

○ {1,2,3,4}

print('*', "abcde".center(6), '*', sep=")   2 points

○ * abcde *

○ Option 2

○ *abcde *

○ * abcde*

What is the output of the following? x = ['ab', 'cd']
print(len(list(map(list, x))))

2 points

○ 2

○ 4

○ 0

○ A TypeError occurs as map has no len().

○ None of the above

list(filter(lambda x:x>5,range(8)))

2 points

○ [6, 7, 8]

○ [5, 7]

○ [7, 8]

○ None of the above

What is the output of the following? x = ['ab', 'cd']
print(len(map(list, x)))

2 points

○ 2

○ A TypeError occurs as map has no len().

○ 4

○ No Error but no output

What is the output of the following? i = 1 while True: if i%3 == 0: break print(i) i + = 1 Assume Indentation is correct 2 points

○ 1 2

○ 1 2 3

○ error

○ none of the mentioned

○ Other: ....

Create a 5x5 identity matrix. a=? 2 points

....

What is the output of the following? try: if '1' != 1: raise 2 points

○ some Error has occured

○ some Error has not occured

○ invalid code

○ none of the above

Why we prefer python in machine learning 2 points

☐ Easy data base access

☐ Large Community to support

☐ Easy to learn

☐ Readily available libraries

☐ Other: ....

list(map(lambda x:x**2,range(8)))   2 points

○ [0, 1, 4, 9, 16, 25, 35, 49]

○ [0, 1, 4, 9, 16, 25, 36, 48]

○ [0, 1, 5, 9, 16, 25, 36, 49]

○ [0, 1, 4, 9, 16, 25, 36, 49]

○ [0, 1, 4, 9, 15, 25, 36, 49]

What is the output of the following? True = False while True: 2 points
print(True) break

○ True

○ False

○ None

○ none of the mentioned

Python is a ?   1 point

○ Compile based Language

○ JVM Based Language

○ Interpreter Based Language

Create a numpy vector with values ranging from 10 to 49 . a   2 points
= ?

....

What is the output of the following? i = 1 while True: if i%2 == 0: break print(i) i += 2 Assume Indentation is correct

2 points

○ 1

○ 1 2

○ 1 2 3 4 5 6 …

○ 1 3 5 7 9 11 …

data_1 = {'state' : ['VA', 'VA', 'VA', 'MD', 'MD'], 'year' : [2012, 2013, 2014, 2014, 2015], 'pop' : [5.0, 5.1, 5.2, 4.0, 4.1]} df_1 = DataFrame(data_1) df_1 Retrieve only the state column?

2 points

Calculate the mean age for each different animal in df.

2 points

○ df.groupby['animal']['age'].mean()

○ df.groupby('animal')['age'].sum()

○ df.groupby('animal')['age'].mean()

○ Option 4

○ Other:

Select just the 'animal' and 'age' columns from the DataFrame df.

2 points

Which of the following is an invalid statement?

1 point

○ abc = 1,000,000

○ a b c = 1000 2000 3000

○ a,b,c = 1000, 2000, 3000

○ a_b_c = 1,000,000

What is the output of the following? x = ['ab', 'cd'] for i in x: i.upper() print(x) Assume Indentation is correct

2 points

○ Option 1

○ ['AB', 'CD']

○ [None, None]

○ none of the mentioned

○ Indendation error

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