CC: 3.3.1: Introduction to kNN Classification

Introduction to kNN Classification: Question 1

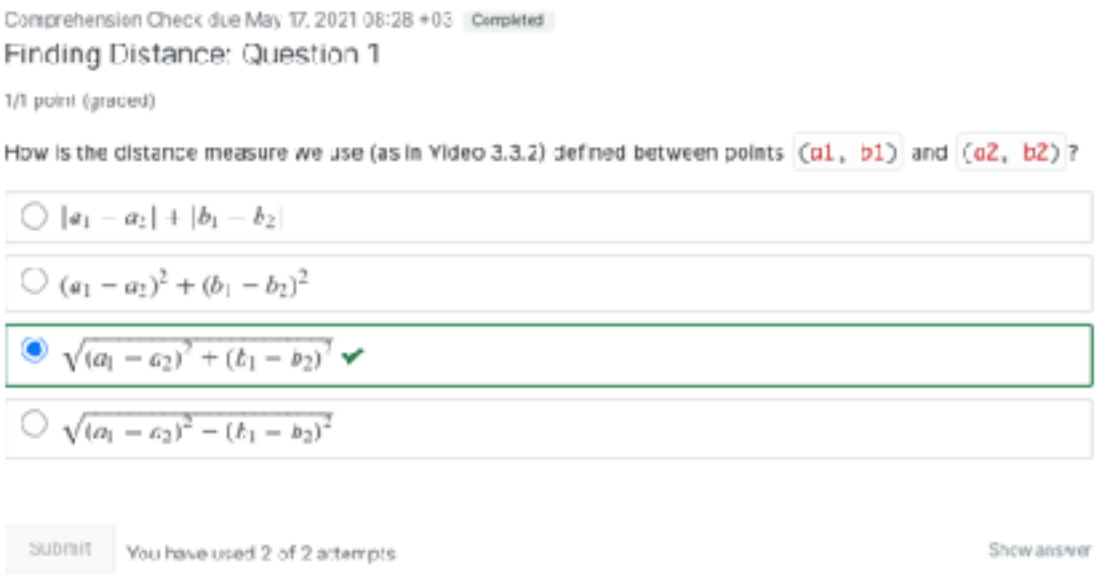
1/1 point (graded)

How does the k Nearest Neighbors classifier classify observations?

According to the most common class among the nearest k neighbors
correct

According to the mean class among the nearest k neighbors

CC: 3.3.2: Finding the Distance Between Two Points



Majority Vote: Question 2

1/1 point (graded)

What will `random.choice()` return for a list containing only one object? (Assume that the `random` module has already been imported.)

- This code returns nothing.
- **This code returns the single element every time.**
- The code will only sometimes select the single element.
- This code contains an error.

✔

CC: 3.3.4: Finding Nearest Neighbors

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Comprehension Check due May 17, 2021 08:28 +03 Completed

Finding Nearest Neighbors: Question 1

1/1 point (graded)

For an `np.array` of dimension 2, what does the `shape` method return?

- The number of rows
- The number of columns
- **A tuple containing the number of rows and columns**
- A list containing the number of rows and columns

✔

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Finding Nearest Neighbors: Question 2

1/1 point (graded)

What does `np.argsort` do?

- It sorts an array, provided its elements are arguments.
- It sorts an array according to a single argument and returns a sorted list.
- **It sorts an array according to a single argument and returns the sorted indices.**
- It will try to sort a list, and if it can't, it will argue with you.

✔

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CC: 3.3.5: Generating Synthetic Data

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Comprehension Check due May 17, 2021 03:28 +03 Completed

Generating Synthetic Data: Question 1

1/1 point (graded)

What does `np.concatenate` do?

- (●) Takes in a tuple of `np.arrays` and joins them lengthwise along the specified axis
- ( ) Takes in a single `np.array` and concatenates itself to itself along the specified axis
- ( ) Takes in a tuple of `np.arrays` and sums them along the specified axis

✔

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Generating Synthetic Data: Question 2

1/1 point (graded)

What is the main benefit of generating synthetic data?

- ( ) You don't have to find and download data.
- ( ) The data will always be exactly the same.
- (●) You know exactly how the data were generated so you know what to expect when testing code.

✔

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CC: 3.3.6: Making a Prediction Grid

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Comprehension Check due May 17, 2021 03:28 +03 Completed

Making a Prediction Grid: Question 1

1/1 point (graded)

What does `np.arange` do?

- ( ) Takes a tuple of `np.arrays` as the first argument and arranges them according to the second argument
- (●) Creates regularly spaced values between the first and second argument, with spacing given in the third argument
- ( ) Takes a `range` object and returns an `np.array` range object

✔

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Making a Prediction Grid: Question 2

1/1 point (graded)

What does `enumerate` do?

- ○ Takes an iterable and returns a range object
- ◉ Takes an iterable and returns a new iterable with tuples as elements, where the first index of each tuple is the index of the tuple in the iterable
- ○ Takes iterables as arguments and returns an array of the total number of elements in each iterable
- ○ Takes iterables as arguments and returns an integer of the total number of elements in all iterables

✔

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CC: 3.3.8: Applying the kNN Method

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Comprehension Check due May 17, 2021 08:28 +03 Completed

Applying the kNN Method: Question 1

1/1 point (graded)

What are the four variables in the `iris` dataset described in Video 3.3.8?

- ○ Sepal length, sepal width, iris length, iris width
- ◉ Sepal length, sepal width, petal length, petal width
- ○ Stamen length, stamen width, iris length, iris width
- ○ Stamen length, stamen width, petal length, petal width

✔

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Applying the kNN Method: Question 2

1/1 point (graded)

How many different species are contained in the `iris` dataset described in Video 3.3.8?

- ◉ 3
- ○ 4
- ○ 5
- ○ 6

✔

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Applying the kNN Method: Question 3

1/1 point (graded)

How often do the predictions from the homemade and `scikit learn` kNN classifiers accurately predict the class of the data in the `iris` dataset described in Video 3.3.3?

- Approximately 65% of the time
- Approximately 75% of the time
- Approximately 85% of the time
- Approximately 95% of the time

✔

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