Lab #8

Programming and Algorithms

Please complete all of the following questions:

1. Given the following code to sort integer number:

# PROGRAM Bubblesort:

Age = [44, 23, 42, 33, 18, 54, 34, 16]

for outerindex in range(0,len(Age)):

# DO

for index in range(0,len(Age)-1):

# DO

if Age[index+1] < Age[index]:

# THEN

TempValue = Age[index+1]

Age[index+1] = Age[index]

Age[index] = TempValue

# ENDIF;

# ENDFOR;

# ENDFOR;

print(Age)

# END.

Change the code so that it sorts the following arrays

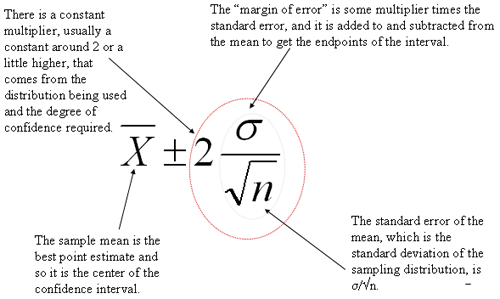
[34.23, 12.34, 545.43, 64.32, 11.11, 36.74]

[‘b’, ‘d’, ‘a’ ,’f’, ’u’, ‘r’,’R’,’2’,’@’]

[“Hello”, “Goodbye”, “How are you?”, “File not found 404”]

[False, True, True, True, False, True, True]

1. The *Confidence Interval* is calculated as follows:



Given the following array:

[44, 23, 42, 33, 18, 54, 34, 16]

Write a Python program to print out two values:

1. The *Average* of the values in the array, minus two times the *Standard Deviation*, divided by the square root of 8.
2. The *Average* of the values in the array, plus two times the *Standard Deviation*, divided by the square root of 8.

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| e-mail me a completed solution to each of the above programs in a Word document, and include Labs #1-#7 in this document also.  e-mail to [Damian.Gordon@dit.ie](mailto:Damian.Gordon@dit.ie) with subject heading “DT255 PaA Lab #1-8” |