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CTEC 415

Java to Python Arrays

double[] sales = new double[10];

double largestSale, sum, average;

The first statement creates the array sales of 10 elements, with each element of type double. The meaning of the other statements is clear. Also, notice that the value of sales.length is 10.

1. Initializing an array to a specific value: Suppose that you want to initialize every element of the array sales to 10.00. You can use the following loop:

for (int index = 0; index < sales.length; index++) sales[index] = 10.00;

1. Reading data into an array: The following loop inputs data into the array sales. For simplicity, we assume that the data is entered at the keyboard one number per line.

 for (int index = 0; index < sales.length; index++)

         sales[index] = console.nextDouble();

     3. Printing an array: The following loop outputs the elements of array sales. For simplicity, we assume that the output goes to the screen.

 for (int index = 0; index < sales.length; index++)

        System.out.print(sales[index] + " ");

4. Finding the sum and average of an array: Because the array sales, as its name implies, represents certain sales data, it may be desirable to find the total sale and average sale amounts. The following Java code finds the sum of the elements of the array sales (total sales) and the average sale amount: sum = 0;

for (int index = 0; index < sales.length; index++)

sum = sum + sales[index];

if (sales.length != 0)

average = sum / sales.length;

 else

average = 0.0;

5. Determining the largest element in the array

Python code:

import array

sales=array.array('f',[0.0]\*10)

#double largestSale, sum, average

largestSale=0.0

sum=0.0

index=0

while(index!=len(sales)):

sales[index]=10.00

index+=1

index=0

while(index!=len(sales)):

sales[index]=float(input("Please enter a number: "))

index+=1

index=0

while(index!=len(sales)):

print(sales[index])

index+=1

index=0

while(index!=len(sales)):

sum=sum+sales[index]

index+=1

print("Sum: "+str(sum))

if len(sales)!=0:

average=sum/len(sales)

else:

average=0.0

print("Average: "+str(average))

index=0

while(index!=len(sales)):

if(sales[index]>largestSale):

largestSale=sales[index]

index+=1

print("Largest Sale: "+str(largestSale))