PROMINEO TECH

Intro to Java Weeks 3-4 Coding Assignment

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package week4;

public class specialWeek4 {

public static void main(String[] args) {

// 1. Create an array of int called ages that contains the following values: 3,

// 9, 23, 64, 2, 8, 28, 93.

int[] ages = { 3, 9, 23, 64, 2, 8, 28, 93 };

// a. Programmatically subtract the value of the first element in the array from

// the value in the last element of the array (i.e. do not use ages[7] in your

// code). Print the result to the console.

System.out.println(ages[ages.length - 1] - ages[0]);

// b. Add a new age to your array and repeat the step above to ensure it is

// dynamic (works for arrays of different lengths).

int[] ages2 = { 3, 9, 23, 64, 2, 8, 28, 93, 13 };

System.out.println(ages2[ages2.length - 1] - ages2[0]);

// c. Use a loop to iterate through the array and calculate the average age.

// Print the result to the console.

int sum = 0;

int avrg = 0;

for (int age : ages) {

sum += age;

avrg = sum / ages.length;

}

System.out.println(avrg);
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// 2. Create an array of String called names that contains the following values:

// “Sam”, “Tommy”, “Tim”, “Sally”, “Buck”, “Bob”.

String[] names = { "Sam", "Tommy", "Tim", "Sally", "Buck", "Bob" };

// a. Use a loop to iterate through the array and calculate the average number

// of letters per name. Print the result to the console.

int sum1 = 0;

for (String name : names) {

sum1 += name.length();

}

System.out.println(sum1 / names.length);

// b. Use a loop to iterate through the array again and concatenate all the

// names together, separated by spaces, and print the result to the console.

for (int i = 0; i < 1; i++) {

System.out.println(

names[0] + " " + names[1] + " " + names[2] + " " + names[3] + " " + names[4] + " " + names[5]);

}

// 3. How do you access the last element of any array?

int[] arr = { 1, 14, 3, 2, 5 };

System.out.println(arr[arr.length - 1]);

// 4. How do you access the first element of any array?

int[] arr1 = { 1, 14, 3, 2, 5 };

System.out.println(arr1[0]);

// 5. Create a new array of int called nameLengths. Write a loop to iterate over
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// the previously created names array and add the length of each name to the

// nameLengths array.

int[] nameLengths = new int[names.length];

for (int i = 0; i < names.length; i++) {

nameLengths[i] = names[i].length();

}

for (int number : nameLengths) {

System.out.println(number);

}

// 6. Write a loop to iterate over the nameLengths array and calculate the sum

// of all the elements in the array. Print the result to the console.

int sumOfNameLengths = 0;

for (int number : nameLengths) {

sumOfNameLengths += number;

}

System.out.println(sumOfNameLengths);

// 7. Write a method that takes a String, word, and an int, n, as arguments and

// returns the word concatenated to itself n number of times. (i.e. if I pass in

// “Hello” and 3, I expect the method to return “HelloHelloHello”).

String word = "Hello";

int n = 3;

System.out.println(concatenation(word, n));

// 8. Write a method that takes two Strings, firstName and lastName, and returns
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// a full name (the full name should be the first and the last name as a String

// separated by a space).

String firstName = "Linda";

String lastName = "Belcher";

System.out.println(fullName(firstName, lastName));

// 9. Write a method that takes an array of int and returns true if the sum of

// all the ints in the array is greater than 100.

int[] arr3 = { 16, 86, 3, 1, 9 };

System.out.println(sumOfInts(arr3));

// 10. Write a method that takes an array of double and returns the average of

// all the elements in the array.

double[] arrayDouble = { 54.78, 31.63, 44.56, 11.23, 78.90 };

System.out.println(avrgDoubleArray(arrayDouble));

// 11. Write a method that takes two arrays of double and returns true if the

// average of the elements in the first array is greater than the average of the

// elements in the second array.

double[] array1 = { 54.78, 31.63, 44.56, 11.23, 78.90 };

double[] array2 = { 1.23, 2.34, 3.45, 4.56, 5.67 };

System.out.println(greaterDouble(array1, array2));

// 12. Write a method called willBuyDrink that takes a boolean isHotOutside, and

// a double moneyInPocket, and returns true if it is hot outside and if

// moneyInPocket is greater than 10.50.

boolean isHotOutside = true;
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double moneyInPocket = 11.75;

System.out.println(willBuyDrink(isHotOutside, moneyInPocket));

// 13. Create a method of your own that solves a problem. In comments, write

// what the method does and why you created it.

double[] monthlyGroceries = {165.70, 120.02, 123.50, 98.78, 78.56, 170.31, 240.02, 65.31, 45.79, 90.09, 87.34, 23.58};

System.out.println(avrgCostOfGroceries(monthlyGroceries));

}

//7.

public static String concatenation(String word, int n) {

String str = "";

for (int i = 0; i < n; i++) {

str += word;

}

return str;

}

//8.

public static String fullName(String firstName, String lastName) {

return firstName + " " + lastName;

}

//9.

public static boolean sumOfInts(int[] intss) {

int summ = 0;

for (int ints : intss) {
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summ += ints;

if (summ > 100)

;

return true;

}

return false;

}

//10.

public static double avrgDoubleArray(double[] doubleArray) {

double sum = 0;

for (double number : doubleArray) {

sum += number;

}

return sum / doubleArray.length;

}

//11.

public static boolean greaterDouble(double[] array1, double[] array2) {

double sum1 = 0;

double sum2 = 0;

for (double numb : array1) {

sum1 += numb;

{

for (double numb2 : array2) {
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sum2 += numb2;

{

if (sum1 / array1.length > sum2 / array2.length) {

}

}

}

}

}

return true;

}

//12.

public static boolean willBuyDrink(boolean isHotOutside, double moneyInPocket) {

if (isHotOutside = true && moneyInPocket > 10.50) {

}

return true;

}

//13.

public static double avrgCostOfGroceries(double[] n) {

double totalCost = 0;

for (double groceries : n) {

totalCost += groceries;

}

return totalCost / 12;
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}

}
```

The method allows to calculate the average cost of groceries per month.