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eclipse-workspace - java_wk3_codingassignment/src/java_wk3_codingassignment/java_wk3_codingassignment.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help

Package Explorer: java_wk3_codingassignment.java
  BMI
  FizzBuzz
  JRE System Library
  src
    (default package)
      Application.java
  HelloWorld
  Java_HW_Wk2
  Java_notes_wk3
  JRE System Library
  src
    (default package)
      java_notes_wk3
  java_wk3_codingassignment
  JRE System Library
  src
    (default package)
      java_wk3_codingassignment
  MyFirstProject

1 package java_wk3_codingassignment;
2
3 public class java_wk3_codingassignment {
4
5     public static void main(String[] args) {
6         //1.
7
8         int[] ages = new int[8];
9         ages[0] = 3;
10        ages[1] = 9;
11        ages[2] = 23;
12        ages[3] = 64;
13        ages[4] = 2;
14        ages[5] = 8;
15        ages[6] = 28;
16        ages[7] = 93;
17
18        System.out.println("#1a " + ages[ages.length - 1] + " - " + ages[0] + " = " + subtractFirstFromLast(ages));
19        int[] ages2 = new int[9];
20        ages2[0] = 3;
21        ages2[1] = 9;
22        ages2[2] = 23;
23        ages2[3] = 64;
24        ages2[4] = 2;
25        ages2[5] = 8;
26        ages2[6] = 28;
27        ages2[7] = 93;
28        ages2[8] = 63;
29        System.out.println("#1b " + ages2[ages2.length - 1] + " - " + ages2[0] + " = " + subtractFirstFromLast(ages2));
30
31        int sum = 0;
32
33        for (int age : ages) {
34            sum += age;
35        }
36        int average = sum / ages.length;
37        System.out.println("#1c Average of original array: " + average);
38
39        System.out.println("#2a Average name length and #2b Concatenated names list");
40
41        avgLength("Sam", "Tommy", "Tim", "Sally", "Buck", "Bob");
42
43    }
44}
```

```
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43 avgLength("Sam", "Tommy", "Tim", "Sally", "Buck", "Bob");
44
45 System.out.println("#3 How do you access the last element of any array? arrayName[arrayName.length - 1]");
46
47 System.out.println("#4 How do you access the first element of any array? arrayName[0]");
48
49 System.out.println("#7 multiplied string: " + multiplyString("Hello", 3));
50
51 //testing #10
52 double[] dubs = new double[3];
53 dubs[0] = 4.5;
54 dubs[1] = 5.0;
55 dubs[2] = 5.5;
56 System.out.println(avgOfDoubles(dubs));
57
58 //testing #11
59 double[] dubs = {4.5, 5.0, 5.5};
60 double[] dubs2 = {5.5, 6.0, 6.5};
61 System.out.println(firstArrayGreater(dubs, dubs2));
62
63 }
64
65 public static int subtractFirstFromLast(int[] ages) {
66     int difference = (ages[ages.length-1] - ages[0]);
67     return difference;
68 }
69
70 //2.
71
72 public static void avgLength(String a, String b, String c, String d, String e, String f) {
73     int sum = 0;
74     String[] names = {a, b, c, d, e, f};
75     //a. Use a loop to iterate through the array and calculate the average number of letters per name.
76     //Print the result to the console.
77     for (String name : names) {
78         sum += name.length();
79     }
80
81     double averageLength = sum/names.length;
82     System.out.println(averageLength);
83
84     //b. Use a loop to iterate through the array again and concatenate all the names together,
85     //Print the result to the console.
86 }
```


The screenshot shows the Eclipse IDE with a project named 'java_wk3_codingassignment'. The package explorer on the left shows the project structure, including 'src' and 'MyFirstProject'. The main editor displays the code for 'java_wk3_codingassignment.java'. The code includes a package declaration, imports, and several methods. The 'main' method is commented out. The code includes a method to calculate the average of an array of doubles, a method to check if the average of two arrays is greater, a method to check if it's hot outside and if there's money in a pocket, and a method to check if the number of open classes is too much.

```
114 package java_wk3_codingassignment;
115
116 import java.util.*;
117
118 // 11. Write a method that takes two arrays of double and returns true if the average of the elements
119 //    in the first array is greater than the average of the elements in the second array.
120
121 public static boolean firstArrayGreater(double[] array1, double[] array2) {
122     if (avgOfDoubles(array1) > avgOfDoubles(array2)) {
123         return true;
124     } else {
125         return false;
126     }
127 }
128
129 // 12. Write a method called willBuyDrink that takes a boolean isHotOutside, and a double moneyInPocket,
130 //    and returns true if it is hot outside and if moneyInPocket is greater than 10.50.
131
132 public static boolean willBuyDrink(boolean isHotOutside, double moneyInPocket) {
133     if (isHotOutside && (moneyInPocket > 10.50)) {
134         return true;
135     } else {
136         return false;
137     }
138 }
139
140 // 13. Create a method of your own that solves a problem. In comments, write what the method does and
141 //    why you created it.
142
143 public static boolean isTooMuch(int numOpenClass, boolean includesCodingAssignment) {
144     if (numOpenClass > 2 || ((numOpenClass > 0) && includesCodingAssignment)) {
145         System.out.println("It is too much work");
146         return true;
147     } else {
148         System.out.println("That's not too much");
149         return false;
150     }
151 }
152
153 //made this in good fun, struggling with the load this week
154
155 }
```

Running Code:

The screenshot shows the Eclipse IDE Console window. The output of the Java code is displayed, showing the results of the methods called in the main method. The output includes the average of an array of doubles, the average of two arrays, the result of the willBuyDrink method, and the result of the isTooMuch method.

```
<terminated> java_wk3_codingassignment [Java Application] C:\Program Files\Java\jdk-16.0.1\bin\javaw.exe (Jun 12, 2021, 7:51:27 PM - 7:51:27 PM)
#1a 93 - 3 = 90
#1b 63 - 3 = 60
#1c Average of original array: 28
#2a Average name length and #2b Concatenated names list
3.0
Sam Tommy Tim Sally Buck Bob
#6 Sum of lengths: 23
#3 How do you access the last element of any array? arrayName[arrayName.length - 1]
#4 How do you access the first element of any array? arrayName[0]
#7 multiplied string: HelloHelloHello
```