SIT771 Object Oriented Development

Pass Task 2.1: Hello User

Overview

To get started with variables, and working with them more closely, this task will have you create a basic program that will collect some data from the user and calculate and display some information.

The material in Course 1, Week 2, Activity 1 will help you with this task.

For this task you need to write a program that reads in the user's name, their height in centimeters, and their weight in kilograms then outputs their BMI (Body Mass Index).

Submission Details

Submit the following files to Doubtfire.

- Your program code
- A screen shot of your program running

The focus of this task is on local variable declarations, the assignment statement, as well as calling method that return values (also known as functions).

Instructions

Read in the user's name

1. Create a new dotnet program called **HelloUser**.
2. In the **Main** method, add code to declare the following variables:
    - A **name** variable to store a `string`.
    - An **inputText** variable to store a `string`.
    - A **heightInCM** variable to store an integer (`int`).
    - A **weightInKG** variable to store a `double`.
    - A **heightInMeters** variable to store a `double`.
    - A **bmi** variable to store a `double`.

    For example, the following code is a start that declares the name, inputText, and heightInCM variables.

```
public class Program
{
    public static void Main()
    {
        string name; // declare a name variable to store a string
        string inputText; // declare inputText variable to store a string
        int heightInCM; // declare heightInCM to store an int
        //.. continue here
    }
}
```

3. Ask the user to enter their name.
4. Use an **assignment statement** together with `Console.ReadLine` to read the string the user enters into the `name` variable.

    ```
    Console.Write("Enter your name: ");
    name = Console.ReadLine();
    ```

5. Use `Console.WriteLine` to output the value of the expression `"Hello " + name`.

    If you want, you can also try this using **string interpolation**. This allows you to add calculated expressions within a special string (starting with a `$` before the `"..."`) . Try the expression `$"Hello {name}"`.

6. Compile and run your program at this point

    Make sure it works as you want before you continue.

Getting small things working quickly, then working from there is a good practice to get into! Remember to **save**, **build**, **run** often.

Read their height and weight

1. Ask the user to enter their height in centimeters.
2. Use `Console.ReadLine` to read the string the user enters, and **store** it in `inputText`.
3. Use `Convert.ToInt32` to convert the text in `inputText` to an integer, and store it in `heightInCM` variable.
4. Store the value of the expression `heightInCM / 100.0` in to the `heightInMeters` variable.
5. Use `Console.WriteLine` to output their height in meters.
6. Compile and run...
7. Now add the code to read in the user's weight. The `Convert.ToDouble` method may be useful here.
8. Output their weight.

Structure this code so that you read in the user's name, welcome them with the Hello message. Then read in both their height and weight before outputting both of these values as a means of confirming what you have read.

Calculating BMI

BMI is calculated by dividing the person's weight in kilograms by their height in meters squared. Use this information to calculate, store, and display the BMI of the person.

Here are some tips:

- You should have all of the data you need.
- Multiplication is performed using `*`. For example `2 * 3` or `age * 5`.
- Use an **assignment statement** to store the calculated value.
- Use `Console.WriteLine` to output the message.

Once you are done, grab a screenshot and backup your work.

Remember to submit this to Doubtfire, and check the status of any existing tasks. You may need to **fix and resubmit** some of your work. You want to check out why, so that you can learn from this and make it faster and easier to get later work to the required standard.