Hyperion Development

Task: Function Overloading

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Introduction

Overview:

First of all, congratulations for getting this far and hopefully you have experienced the real fun of "Programming"!

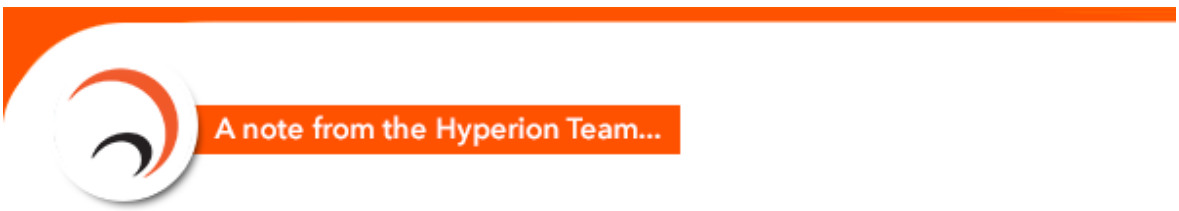
In this Task, our focus will be on 'function overloading' - We are pretty sure you have come across this term before.

Function Overloading is the concept in programming that allows us to create multiple functions sharing the same name, but having a different signature of parameters.

A function can have more parameters or just same number of parameters with different data types in different positions.

Please note that the signature of a function refers only to function name and parameters and it has nothing to do with the return type.

-The Hyperion Team



Instructions

- Open the Overloading.sln file in the folder Overloading and read its contents. Make sure you read all of the comments and try your best to understand them.

- You may run the project to see the output. The instructions on how to do this are inside the file. Feel free to write and run your own example code before doing the tasks to become more comfortable with C#.

- Instructions on how to complete your compulsory tasks are below.

Compulsory Task 1

Follow these steps:

NOTE: Make a copy of this folder on your computer. Submit the required files when you done

Before you go any further, Open the *Example Programs* folder in your Task folder. Have a look at the two example programs written for you, run them by hitting F5 when opened. Look at the output of each program and compare it to the code written within the *Overloading* solution file - the comments are there to help you.

In this Task, you are required to create a pseudo calculator for primary school kids, this calculator is only to:

- Add
- Subtract
- Divide (divide two integer numbers)
- Multiply (multiply three decimals together)

NOTE: Each calculation has a function.

The Addition and Subtraction functions must take in three variables, the two numbers which the calculation is based on and also a string variable specifying if it's addition or subtraction.

Create a new C# project called *schoolChildrenCalculator* within your Task folder and do the following:

1. Create four functions all with same name: **CalculateIt()** , each performing a calculation and then **RETURN**ING the answer.

2. The answer must be returned to a variable in the Main() function which gets displayed on the screen. Make sure no data is lost while you working on the given calculation.

Compulsory Task 2

Follow these steps:

Create a new C# project called *Validation* within your Task folder and do the following:

You are to create two functions with same name **getDetails()**, but both performing unique tasks, as well as one function with a different name, **DisplayData()**.

variables needed:
string username
string password

1. In one of the functions, you are going to validate a username by making sure it has between 5 and 10 letters(only) in it and then **RETURN**ING true meets the requirements, otherwise false if it does not. The username you will get from user's input.
2. In the second function you are supposed to randomise a password for that user, which will have between 3 and 5 digits and then storing that password in an String variable (integer to string conversion).
3. In **DisplayData()** function, display the username if it is valid and the new password with a message welcoming them to their newly created account. If the username is invalid, assign a default name which is similar to the invalid one.

Still need help?

Just write your queries in your comments.txt file and your tutor will respond. Alternatively you can email us on help@hyperiondev.com.

Task Statistics

Last update to task: 19/02/2016.
Authors: Richard Niescior & Brandon Haschick
Main trainer: Umar Randeree.
Task Feedback link: Hyperion Development Feedback.