Hyperion Development

Task: Data Structures I

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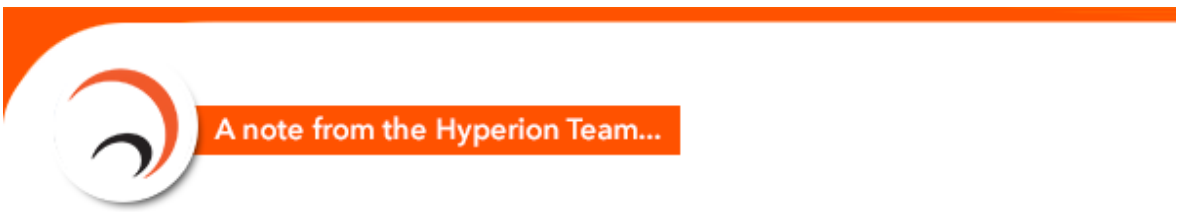
Introduction

Overview:

Welcome to this task. We now move onto more intermediate concepts from here on out. In this task, you will learn about arrays and linked lists - two ways of storing multiple variables of the same data type. Please read the instructions below for more information.



Instructions

- Open the Data_I.sln file in the folder Data_I 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 are done.

In this task you will be required to build a Celsius to Fahrenheit temperature converter. Create a new C# Project called ***Celfah*** in your ***Task*** folder:

- The user must enter ten temperature values in degrees Celsius. These must be stored into an array or linked list (whatever you prefer).

- You will then have to convert these values to Fahrenheit and return them to the user as shown below:
    - Celsius Fahrenheit
    - 1 33.8
    - 3 37.4
- The formula that you will need to convert from Celsius to Fahrenheit is:

  (°C x 9/5) + 32 = °F eg. 1°C = 33.8°F .
  Try this on your calculator to ensure that you get the right value.

Compulsory Task 2

Follow these steps:

Create a new Project called ***DecBin*** in your ***Task*** folder:

- Using linked lists, create a program that accepts decimal numbers from the user and returns the binary equivalents of those numbers.

- Read the file *Decimal to Binary Conversion.pdf* in your *Task 7* folder to understand how to convert from decimal to binary numbers.

- The output must look like the sample output shown below:

Decimal	Binary
1	1
2	10
3	11

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: 16/02/2016.
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Task Feedback link: Hyperion Development Feedback.