CSCI 1301 – Project 1 – Solution

1 Grade Calculation

The following guideline was used to grade your work over 20:

<table>
<thead>
<tr>
<th>Points</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>+20</td>
<td>You submitted something</td>
</tr>
<tr>
<td>−2</td>
<td>You did not submit using D2L</td>
</tr>
<tr>
<td>−19 or −5 if the source code is present</td>
<td>It is not the right file (e.g., only the sln, or not a zip archive)</td>
</tr>
<tr>
<td>−2</td>
<td>The archive does not have the right name (i.e., “lname fname.zip”)</td>
</tr>
<tr>
<td>−2</td>
<td>The project does not have the right name (i.e., “Project01”)</td>
</tr>
<tr>
<td>−2</td>
<td>There are no delimited comments at the beginning with your name and the date (i.e., /<em>...</em>/</td>
</tr>
<tr>
<td>−15</td>
<td>Your program does not compile</td>
</tr>
<tr>
<td>−3</td>
<td>The variable for your username has the wrong type or value.</td>
</tr>
<tr>
<td>−3</td>
<td>The first message is not properly displayed.</td>
</tr>
<tr>
<td>−3</td>
<td>You are not correctly reading the height of the user.</td>
</tr>
<tr>
<td>−4</td>
<td>Your conversion from centimeters to feet and inches is off.</td>
</tr>
<tr>
<td>−3</td>
<td>The second message is not properly displayed.</td>
</tr>
<tr>
<td>+1</td>
<td>You added meaningful comments to your code.</td>
</tr>
</tbody>
</table>

Of course, I will use this table only as a guideline, and use my judgment to grade your work, but I believe it is useful for you to see where my expectations were.

2 Solution

Please, find a possible solution in this archive¹. The Program.cs file contains:

```csharp
/*
 * Clement Aubert
 * 09/12/2020
 * CSCI 1301 -- Project 1
 */

using System;

class Program
{
    static void Main(string[] args)
    {
        /* Display the information about us: */
```

¹http://spots.augusta.edu/caubert/teaching/2020/fall/csci1301/weekly/06/project/aubert_clement.zip
string uName = "caubert";
Console.WriteLine(uName + " would like to know your height in meters. Please enter it: ");

/* Gather the information about the user :*/

double heightIncm; // We use a double to store the height in centimeters given by the user.
heightIncm = (double.Parse(Console.ReadLine()) * 100); // This line does a lot.
// 1. We read as a string the value entered,
// 2. We convert it to a double,
// 3. We multiply it by 100, to obtain centimeters instead of meters,
// 4. We assign the result to heightIncm.

/* Conversion */

double heightInin; // Variable to hold the height in inches

/*
 * Conversion factor from cm to ft change with where you are!
 * In Georgia, we use the U.S. Survey feet
 * https://www.ngs.noaa.gov/SPCS/images/spcs83_legislation_feet.png
 *
 * So,
 * 1 ft = 0.304800609601 m
 * 1 ft = 30.4800609601 cm
 *
 * But we will use another way of computing the height.
 * We will convert it to inches, using
 * 1 in = 2.54 cm
 * and then obtain the feet using
 * 1 ft = 12 in
 */

heightInin = heightIncm / 2.54; // Store the height in inches of the user.
// The rest of the computation, and the truncation, will take place at the next step.

/* Displaying the result */
Console.WriteLine(uName + " computed that your height is ",
+(int)(heightInin / 12) // Compute the number of feet, and truncate it.
+ " ft and ")
+ (int)(heightInIn % 12) // Compute the remainder of the previous operation, and truncate it.
  + " inches."
};
}
}