Unit 1 Assignment:

Unit 1 Assignment Instructions

In this unit you will complete the coding exercises before starting the Coding Project. Review the detailed instructions and rubrics before starting your Assignments.

Submission Instructions

You will submit the following files for Unit 1:

.cs files for C#
.java files for Java
.php and/or .js files for Web Development

Additionally, in a Word document, paste a screenshot of the output for each exercise.

You will be submitting three code files, one for each exercise (.cs, .java, .php or .js) and one Word document in a zipped folder.

Zip these four files into a zipped folder and submit the one zipped folder.

Naming Your Files and Zip Folder

The code files should be saved as: IT213_YourLastName_UnitX_ExerciseX_Language.

The word document should be saved as: IT213_YourLastName_UnitX_Screenshots

The zip folder should be saved as: IT213_YourLastName_UnitX.Zip

Unit 1 Assignment: Coding Exercises

You must complete the following coding exercises before starting the Coding Project. By completing these exercises you will be better prepared for the Assignment.

Note: If your language of choice is Web Development, you will need to complete the exercises in both PHP and JavaScript.

Exercises

1-1. Using the language of your choice (C#, Java, Web Development languages (PHP and JavaScript)):
   Declare a variable called number1 and initialize its value to 4.
   Declare a variable called number2 and initialize its value to 5.
   Declare a variable called sum.
For each of the declared variables, select the appropriate data type. Add the variables number1 and number2 and display the result to the console screen, using the following output: “The sum of number1 and number2 is X”, with X being the actual result.

1-2. Using the language of your choice (C#, Java, Web Development languages (PHP and JavaScript)):
   Declare a string variable called numberString and initialize this to a string value of 20. Convert this string value to an integer and store the converted value in a variable called number.
   Declare a second integer variable called number2 and initialize to 10.
   Divide number by number2 and print the result to the console screen, using the following output: “the variable number divided by number2 is equal to X”, with X being the actual result.

1-3. Using the language of your choice (C#, Java, Web Development languages (PHP and JavaScript)):
   Declare two integer variables called num1 and num2 and initialize them to 25 and 5 respectively.
   Perform the following mathematical operations and display the results to the screen:
   A. Subtract num1 from num2.
   B. Subtract num2 from num1.
   C. Multiply num1 and num2.
   D. Divide num1 by num2.
   E. Increment the value of num1.
   F. Decrement the value of num2.

### Unit 1 Assignment: Coding Exercises Rubric

<table>
<thead>
<tr>
<th>Exercise Criteria</th>
<th>Possible</th>
<th>Earned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exercise 1 completed correctly</td>
<td></td>
<td>0-5</td>
</tr>
<tr>
<td>Exercise 2 completed correctly</td>
<td>0-5</td>
<td></td>
</tr>
<tr>
<td>Exercise 3 completed correctly</td>
<td>0-5</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>0-15</td>
<td></td>
</tr>
</tbody>
</table>

### Assignment 2: Coding Project

Once you have completed the Unit 1 Coding Exercise above, you can begin working on the Coding Project.

Using the language you have chosen to focus on: C#, Java, Web Development languages (PHP and JavaScript), please complete the following Assignment:
You need a program that will allow a student to register for classes on a college website. For this exercise declare the following variables that you would use in this program: name, address, city, state, zipCode, userName, pinNumber, tuitionOwed.

Also declare a constant for CostPerUnit with a value of 100.00. Be sure to use the correct naming conventions. Assign the following values to these variables:

- name: John Smith
- address: 101 N. Main Street
- city: Anytown
- state: TX
- zipCode: 11111
- numberUnitsTaken: 18

Print to the console screen the student’s name, address, city, state, zip code and the amount of tuition the student owes. Include labels for each item as shown in expected output. Format the tuition owed as currency.

POSSIBLE EXPECTED OUTPUT

Assignment 2 Submission Instructions:

Review the How to Zip Project Folders in Visual Studio and Eclipse.

Submit the complete project folder, zipped.

- For C# this will be the Visual Studio Project.
- For Java, PHP, and Javascript, this will be the Eclipse Project.
File name format: IT213_YourLastName_UnitXProject_Language

**Unit 1 Assignment 2: Coding Project Rubric**

<table>
<thead>
<tr>
<th>Assessment Criteria</th>
<th>Points Possible</th>
<th>Earned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program outputs student name, address, city, state and zip.</td>
<td>0-5</td>
<td></td>
</tr>
<tr>
<td>Program outputs calculated value of tuition owed by the student.</td>
<td>0-8</td>
<td></td>
</tr>
<tr>
<td>Tuition owed output is displayed in currency format.</td>
<td>0-5</td>
<td></td>
</tr>
<tr>
<td>Variables are named correctly according to the Assignment instructions.</td>
<td>0-6</td>
<td></td>
</tr>
<tr>
<td>Constants are named correctly according to Assignment instructions.</td>
<td>0-6</td>
<td></td>
</tr>
<tr>
<td>Variables are appropriately typed</td>
<td>0-5</td>
<td></td>
</tr>
<tr>
<td>Constants are appropriately typed.</td>
<td>0-5</td>
<td></td>
</tr>
<tr>
<td>Output includes labels in front of the values</td>
<td>0-5</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>0-45</td>
<td></td>
</tr>
</tbody>
</table>