

Unit 2 Assignment Instructions



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

Submission Instructions

You will submit the following:

- .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 2 Coding Exercises: Coding Exercises

You must complete the following coding exercises before starting the coding Projects. 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.

2-1.Type the following accurate code in the language of your choice. If there are errors, use the accurate code to check against the code that you entered and fix any issues. Run the completed code.

C#

```
1  // Fig. 3.18: Comparison.cs
2  // Comparing integers using if statements, equality operators
3  // and relational operators.
4  using System;
5
```

```

6  public class Comparison
7  {
8      // Main method begins execution of C# app
9      public static void Main( string[] args )
10     {
11         int number1; // declare first number to compare
12         int number2; // declare second number to compare
13
14         // prompt user and read first number
15         Console.Write( "Enter first integer: " );
16         number1 = Convert.ToInt32( Console.ReadLine() );
17
18         // prompt user and read second number
19         Console.Write( "Enter second integer: " );
20         number2 = Convert.ToInt32( Console.ReadLine() );
21
22         if ( number1 == number2
23             Console.WriteLine( "{0} == {1}", number1, number2
24         );
25
26         if ( number1 != number2
27             Console.WriteLine( "{0} != {1}", number1, number2
28         );
29
30         if ( number1 < number2
31             Console.WriteLine( "{0} < {1}", number1, number2
32         );
33
34         if ( number1 > number2
35             Console.WriteLine( "{0} > {1}", number1, number2
36         );
37
38         if ( number1 <= number2
39             Console.WriteLine( "{0} <= {1}", number1, number2
40         );
41
42         if ( number1 >= number2
43             Console.WriteLine( "{0} >= {1}", number1, number2
44         );
45     } // end Main
46 } // end class Comparison

```

Java

```
// Compare integers using if statements, relational operators
3 // and equality operators.
4 import java.util.Scanner; // program uses class Scanner
5
6 public class Comparison
7 {
8     // main method begins execution of Java application
9     public static void main( String[] args )
10    {
11        // create Scanner to obtain input from command line
12        Scanner input = new Scanner( System.in );
13
14        int number1; // first number to compare
15        int number2; // second number to compare
16
17        System.out.print( "Enter first integer: " ); // prompt
18        number1 = input.nextInt(); // read first number from user
19
20        System.out.print( "Enter second integer: " ); // prompt
21        number2 = input.nextInt(); // read second number from user
22
23        if ( number1 == number2 )
24            System.out.printf( "%d == %d\n", number1, number2 );
25
26        if ( number1 != number2 )
27            System.out.printf( "%d != %d\n", number1, number2 );
28
```

```

29         if ( number1 < number2 )
30             System.out.printf( "%d < %d\n", number1, number2 );
31
32         if ( number1 > number2 )
33             System.out.printf( "%d > %d\n", number1, number2 );
34
35         if ( number1 <= number2 )
36             System.out.printf( "%d <= %d\n", number1, number2 );
37
38         if ( number1 >= number2 )
39             System.out.printf( "%d >= %d\n", number1, number2 );
40     } // end method main
41 } // end class Comparison

```

JavaScript

```
<html>
```

```
<head>
```

```
<title>Exercise</title>
```

```
<script type="text/javascript">
```

```

    function greaterNum(){

        var value1 = document.getElementById('num1').value;

        var value2 = document.getElementById('num2').value;

        if (value1 > value2){

            alert("Value 1 is greater than value 2");

```

```
}

    if (value2 > value1){

        alert("Value 2 is greater than value 1");

    }

    if(value1 >= value2){

        alert("Value 1 is equal to or greater than value 2")

    }

    if(value1 <= value2){

        alert("Value 1 is equal to or less than value 2")

    }

}

</script>

</head>

<body>

<form>

<label class="label1">Enter Value 1:</label>

<input type="number" name="num1" id = "num1">

<label class="label2">Enter Value 2:</label>

<input type="number" name="num2" id = "num2">
```

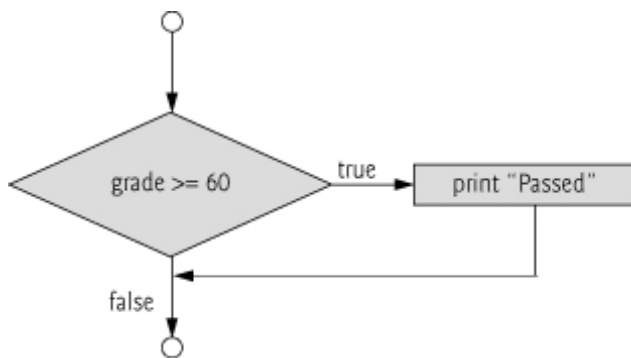

<input type="button" value=" See relationship between numbers " onclick="greaterNum()">

</form>

</body>

</html>

2-2. _Using the language of your choice (C#, Java, Web Development languages (PHP and JavaScript), write code that represents the flowchart below.

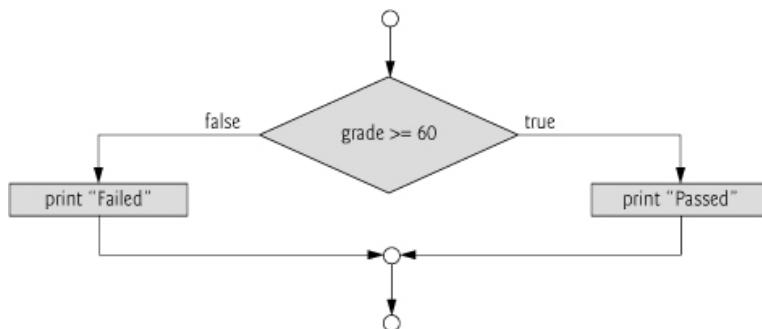


Expected Output

Grade >= 60 Output will be Passed

Grade <60 Output will be nothing.

1-1. 2-3. Using the language of your choice (C#, Java, Web Development languages (PHP and JavaScript), write code that represents the flowchart below.



Grade ≥ 60 Output will be Passed

Grade <60 Output will be Failed

Unit 2 Assignment: Coding Exercises Rubric

Exercise Criteria	Possible	Earned
Exercise 1 completed correctly	0-5	
Exercise 2 completed correctly	0-5	
Exercise 3 completed correctly	0-5	
Total	0-15	

Unit 2 Assignment 2: Coding Project

Once you have completed the Unit 2 Coding Exercises, you can start working on the following Assignments:

Using the language you have chosen to focus on: C#, Java, Web Development languages (PHP and JavaScript), please complete the following Assignment.

Use if, else if, and else statements to determine when a golf score is above, below or equal to par. Print the message "score is below par" or "score is above par" or "score is equal to par" depending on your answer. Use **par** and **strokes** as the variable names and set $\text{par}=3$ and $\text{strokes}=4$.

EXPECTED OUTPUT

The score is above par.

Unit 2 Assignment 2: Coding Project Rubric

Assignment Criteria	Points Possible	Earned
Program provides the correct/expected output.	0-5	
Variables are correctly named according to Assignment instructions.	0-5	
Variables are correctly typed.	0-5	
Variables are initialized with the proper values according to the instructions.	0-5	
Conditionals are appropriately declared using the proper syntax.		

Uses if statement.	0-5	
Uses else if statement.	0-5	
TOTAL	0-30	

Unit 2 Assignment 3: Coding Project

Write a switch statement to print out the full days of the week depending on a number 0-6, with 0 being 'Sunday'. Use the variable selection Number and set it equal to 5 to execute the code.

EXPECTED OUTPUT

The day of the week is Friday

Unit 2 Assignment 3 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 2 Assignment 3: Coding Project Rubric

Assignment Criteria	Points Possible	Points Earned
Program provides the correct/expected output.	0-5	
Variables are given the proper names according to Assignment instructions.	0-5	
Variables are correctly typed.	0-5	
Switch statement is appropriately implemented using the proper syntax. Checks correct variable	0-5	
Case statements implemented correctly.	0-5	
Input variable is assigned the proper value according to the assignment instructions.	0-5	

Total

0-30