Unit 5 Assignment Instructions

Note: There are four Assignments in this unit (one set of practice exercises, and 3 Coding Projects).

In this unit you will complete the modeling exercises before starting the modeling Projects. View 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 (In either .cs,.java, or .php and .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 5 Assignment: Coding Exercises

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

5-1. **Write pseudo-code *and create a flowchart for a program called CheckPassFail which prints "Pass" if the integer variable called "grade" is equal to or greater than 60, and which prints "FAIL" if the integer variable called "grade" is less than 60.***

5-2. **Write pseudo-code and create a flowchart** for a program called SumAndAverage that provides the sum of the numbers 1 through 50 and which also computes the average of those numbers.

5-3. **Write pseudo-code** for a program that displays the following on the screen:

^^^^^^^
^^^^^^^
^^^^^^^

^^^^^^^
^^^^^^^
^^^^^^^

Unit 5 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 5 Assignment 2: Coding Project

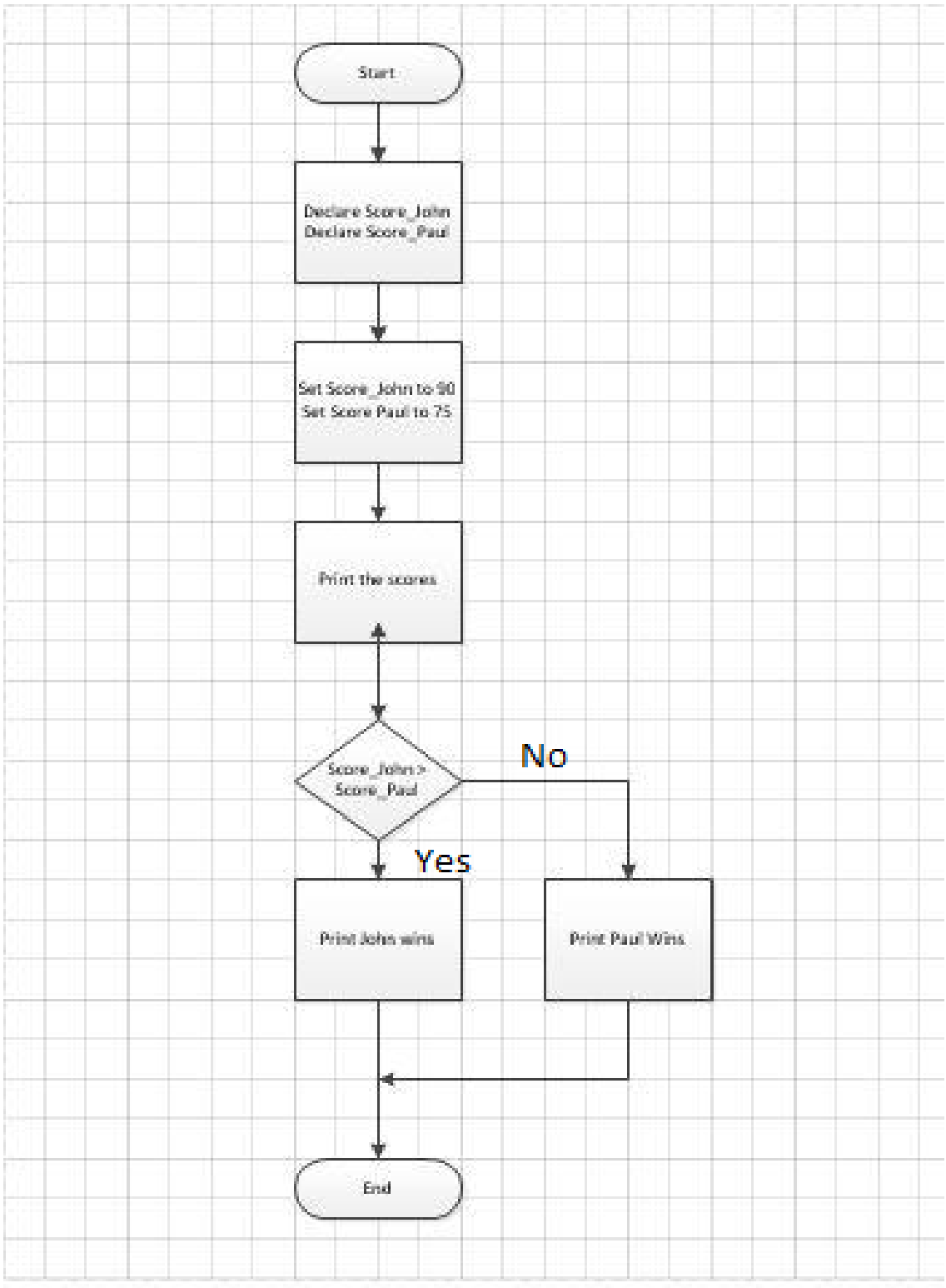
Using the language you have chosen to focus on: C#, Java, Web Development languages (PHP and JavaScript), please complete the following Assignment.

Write code that accurately reflects the flowchart shown below.

Expected Output:

```
OUTPUT:    Score_John = 90
           Score_Paul = 75

           John wins
```


Start
Declare Score_John
Declare Score_Paul
Set Score_John to 90
Set Score Paul to 75
Print the scores
Score_John >
Score_Paul
No
Yes
Print John wins
Print Paul Wins
End

Unit 5 Assignment 2: Coding Project Rubric

Assignment Criteria	**Points Possible**	**Earned**
Program provides the correct/expected output.	0-5	
Variables are correctly named according to information in flowchart.	0-5	
Variables are correctly typed.	0-5	
Decision structure is appropriately implemented based on the flowchart.	0-5	
Code accurately reflects the flowchart.	0-10	
TOTAL	**0-30**	

Unit 5 Assignment 3: Coding Project

Write code that accurately reflects the flowchart shown below.

EXPECTED OUTPUT

OUTPUT:

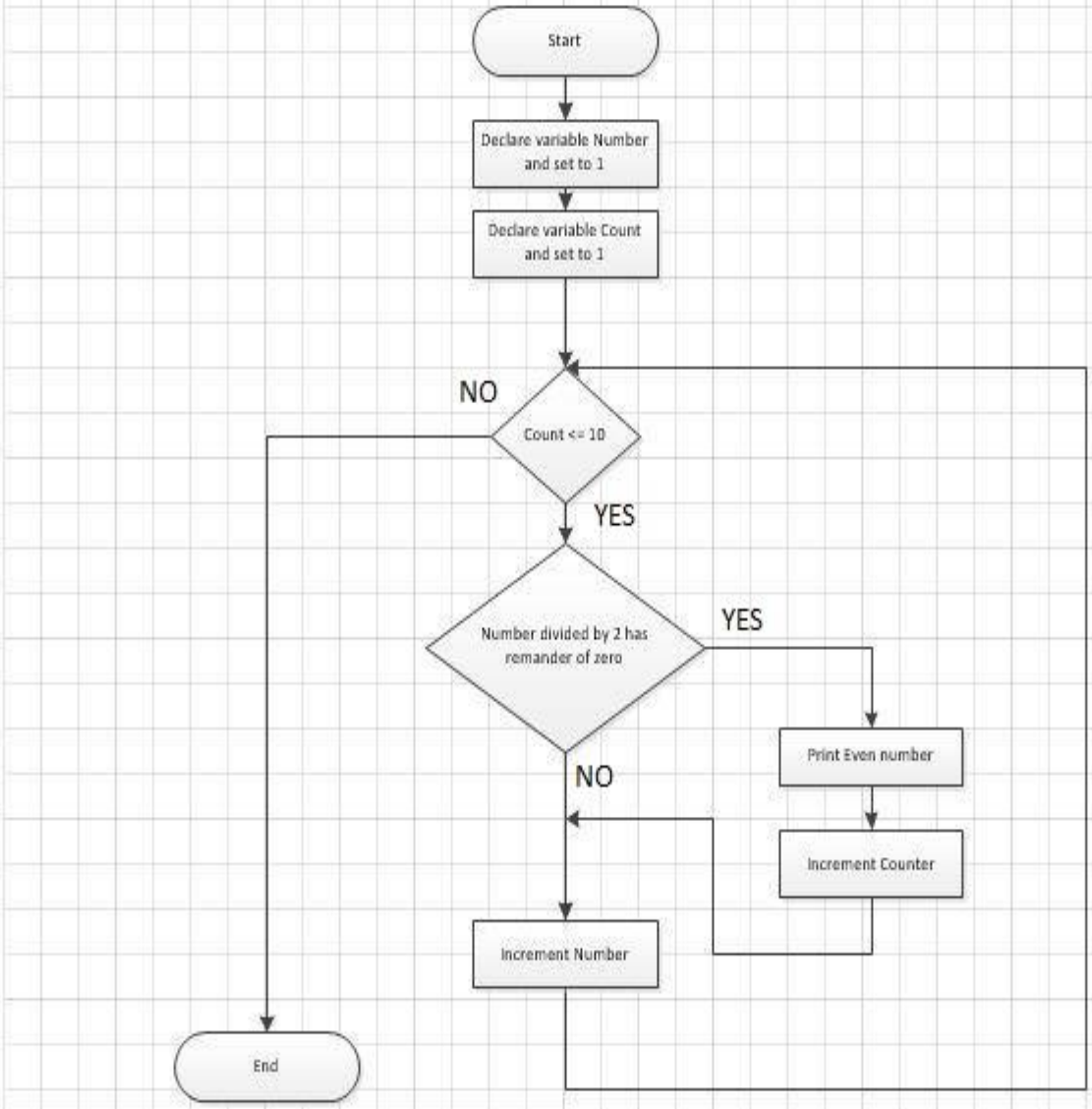
2

4

6

8

10


Start
Declare variable Number and set to 1
Declare variable Count and set to 1
NO
Count <= 10
YES
Number divided by 2 has remander of zero
YES
Print Even number
NO
Increment Counter
Increment Number
End

Unit 5 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	
Decision structures are properly implemented. Decision structure one properly coded. Decision structure two properly coded.	 0-5 0-5	
Program accurately reflects the flowchart.	0-5	
Total	0-30	

Unit 5 Assignment 4: Coding Project

Write code that accurately reflects the pseudocode shown below.

EXPECTED OUTPUT

OUTPUT:

1 The
2 quick
3 brown
4 fox
5 jumps
6 over
7 the
8 lazy
9 dog

Total of 9 words.

Pseudocode:

- Create a string variable called sentence,
- Set sentence to the phrase "**The quick brown fox jumps over the lazy dog.**"
- Starting at the beginning of the sentence, examine each character, until you reach the end of the sentence.
- When you find a blank character that indicates the end of a word, extract that word out, increment the word count and print it.
- Continue until you reach the end of the sentence.
- Print the total word count.

Unit 5 Assignment 4: Coding Project Rubric

Assignment Criteria	**Points Possible**	**Points Earned**
Program provides the correct/expected output.	0-5	
The variable 'sentence' is set equal to the correct phrase "The quick brown fox jumps over the lazy dog."	0-5	
The program correctly identifies a blank character.	0-5	
The program extracts the word and increments the word count.	0-5	
Program prints the total word count.	0-5	
Program accurately reflects the pseudocode.	0-5	
Total	**0-30**	