CSE 1321 Fall 2019 – Pseudocode Submission Template

Step 1: Read the Problem-Solving Guide thoroughly. First, you have to understand the process. You must use this method to write the pseudocode for assignment 1 - pseudocode.

Step 2: Complete pseudocode part of your assignments based on the guide, use the following template to write your answers:

**Problem Statement:**

One of the truly fascinating things about the world is

that it’s infinite. What do we mean by this? As an example, we could ask you how many

shades of yellow there are, and you’d soon realize there are an infinite number of them.

Because computers don’t have an infinite amount of storage space, they have to

approximate the natural world. For colors, they most often use an additive color model

comprised of (R)ed, (G)reen and (B)lue. They store these values either as a floating

point number 0.0 – 1.0 (fully off to fully on), or an integer between 0 to 255. Your task

is to:

a) Ask the user to individually enter in three values between 0-255

b) Read those three values in

c) Convert each number to a new range of 0.0 – 1.0

d) Display the results

**Solution Plan:**

1. CREATE int variables “r”, “g”, and “b” to represent the (0-255) values for red, green, and blue.

2. PRINT "Enter a red value (0-255): "

3. READ value from user and store in “r” variable

4. PRINT "Enter a blue value (0-255): "

5. READ value from user and store in “b” variable

6. PRINT "Enter a green value (0-255): "

7. READ value from user and store in “g” variable

8. CREATE float variables “newR”, “newG”, “newB” to store new converted values for red, green, and blue respectively.

9. STORE r/255 in “newR”, g/255 in “newG”, b/255 in “newB”

10. PRINT “New color is red=” + newR + “, green=” + newG + ” , blue=” + newB

**Execution:**

1. Create variables called “r”,” g”, and “b”

2. Read the user’s individual inputs for each color (red, green, blue) in a 0-255 range

3. Store the user’s value of red as “r”, the user’s value of green as “g”, and the user’s value of blue as “b”

4. Use the conversion formula for new variables: r/255 g/255 b/255

5. Store the converted red value as “newR”, the converted green value as “newG”, and the converted blue value as “newB”

6. Write the converted outputs for each color along with text.

**Evaluation:**

The program works as expected but problems may occur if values are not a number.

Step 3: Complete the evaluation below:

Q1: Did the pseudocode exercise help you to understand the requirements and solve the problem faster?

* Yes
* No
* Other

Q2: What did you like about this pseudocode guide and the iterative method of solving problems?

Your Response: I learn more about computer science principles.

Q3: What can be improved about this pseudocode guide?

Your response: More documentation on pseudocode writing.