N4/5 Computing Science – Software Design and Development

Due Date: In Class Fri 9th Dec

Name

Homework 10

Read the pseudocode program below and answer the questions that follow.

SET diver\_names, nations, judge\_scores, difficulty, fault\_points, dive\_scores TO [ blank lists]

FOR count\_index FROM 0 TO 10 DO

RECEIVE diver\_names(count\_index) FROM KEYBOARD

RECEIVE nations(count\_index) FROM KEYBOARD

RECEIVE judge\_scores(count\_index) FROM KEYBOARD

RECEIVE difficulty(count\_index) FROM KEYBOARD

RECEIVE fault\_points(count\_index) FROM KEYBOARD

SET dive\_scores(count\_index) TO (judge\_scores(count\_index) \* difficulty(count\_index)) - fault\_points(count\_index)

END FOR

SEND “Olympic Diving Scores Table” TO DISPLAY

FOR x FROM 0 TO 10 DO

SEND [x+1, Tab(5), diver\_names(x), Tab(20), nations(x), Tab(25), dive\_scores(x)] TO DISPLAY

END FOR

FOR y FROM 0 TO 10 DO

IF nations(y) = “GBR” THEN

SEND [“Home Hopes - ”, diver\_names(y), “: “, dive\_scores(y)] TO DISPLAY

END IF

END FOR

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1. Explain the purpose of line 1.

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1. Explain type of construct is used Lines 2–9 and explain the count\_index 0 to 10.

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1. Describe the purpose of Lines 2 - 9.

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1. Explain clearly what is happening in Line 8.

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1. Explain the major importance of the count\_index variable throughout the loop.

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1. What happens in Line 12 of the program? What do you think Tab ( ) is? Why x+1?

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1. Why if count index, x and y do exactly the same job are best kept different?

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1. Describe the purpose of Lines 10 – 13.

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1. Explain the control construct Lines 15 – 17.

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1. How does Line 15 make sure to access and display the correct diver’s information in Line 16?

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