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Assignment 7

Pseudo code

Program name: ClassifyScores

Description: This program verifies and stores all the scores entered by the user based on the score they have entered. At last it will display the array if they enter a negative number.

Main

Define terms

0.1 Let score to be a score entered by user

START

1.0 Score \leftarrow user's entry

2.0 Do while score \geq 0

 2.1 if verifyScore(score) is true then

 2.1.1 storeArray(score, myGrades)

3.0 displayArray(myGrades)

END

verifyScore

Define terms

0.1 Given int score

START

1.0 boolean verify \leftarrow true

2.0 if score > 100 then

 2.1 S.O.P: "the score can't be bigger than 100"

 2.2 verify \leftarrow false

3.0 if score < 0 then

 3.1 S.O.P: "The score can't be smaller than zero"

 3.2 verify \leftarrow false

4.0 return verify

END

storeArray

Define terms

0.1 Given int num

0.2 Given int array myGrades

0.3 Let group to be the number of array that each score belongs to

START

1.0 if num=100

1.1 increment myGrades[9]

2.0 else

2.1 int group = num/2

2.2 myGrades[group]++

END

displayArray

Define terms

0.1 Given int array myGrades[]

START

1.0 S.O.P: " Range NUMBER OF SCORES"

2.0 S.O.P: " _____ "

3.0 S.O.P: " 0 - 9 " + " "+ myGrades[0]

4.0 repeat while (int i = 19; i<99; i+=10)

4.1 int temp ← i/10

4.2 S.O.P: (i-9) + " - " + (i) + " "+ myGrades[temp]

5.0 S.O.P: "90 - 100" + " "+ myGrades[9]

END

Methods summary:

verifyScore(): verify that the score is between 0 and 100

storeArray(): store the score into each array that score belongs to.

displayArray: Display each how many scores are stored in each array.