William Pulkownik

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CIS 1400

LAB 6 Pseudocode

Module Main()

Declare Real : score1, score2, score 3, score 4, score5, average

Declare String: grade1, grade2, grade3, grade4, grade5, averageGrade

Display “Please enter 5 test scores to receive letter grades and test average”

score1 = getValidScore()

grade1 = determineGrade(score1)

Display ”The test “, grade1

score2 = getValidScore()

grade2 = determineGrade(score2)

Display ”The test “, grade2

score3 = getValidScore()

grade3 = determineGrade(score3)

Display “The test “, grade3

score4 = getValidScore()

grade4 = determineGrade(score4)

Display ”The test “, grade4

score5 = getValidScore()

grade5 = determineGrade(score5)

Display ”The test “, grade5

average = calcAverage(score1, score2, score3, score4, score5)

averageGrade = determineGrade(average)

Display ”The test average is: “, average, '.2f’

Display ”The test average letter “, averageGrade

End Module

//the getValidScore function prompts for a string input, verifies the input is valid and contains only //numbers through isInvalid function, the returns it to the main module as a real number

Function String getValidScore()

Declare string score

Display “Enter a test score: “

Input score

While isInvalidScore(score) == true

Display 'Error! the score cannot be less than 0 or greater than 100.'

Display ‘Enter the correct score: ’

Input score

End while

//From here out, the score will be handled as a real number

Return stringToReal(score)

End function

// the isInvalidScore function checks if score from calling function is valid number with replace AND //isdigit functions on the string 'score' also

function isInvalidScore(score)

Declare Real score

status = True

if not score.replace”.', '', 1).isdigit() OR Real score < 0 OR Real score > 100, Then

status = True

else

status = False

end if

return status

end function

// determineGrade is a simple nested decision structure

function determineGrade(score)

Declare Score Real

If score < 60 Then

Return String “Grade is F.”

Else If score < 70 Then

Return string “Grade is D.”

Else If score < 80 Then

Return String “Grade is C.”

Else If score < 90 Then

Return String “Grade is B.”

Else

Return String “Grade is A.”

End If

End function

Function calcAverage(score1, score2, score3, score4, score5)

Declare Real average

Set average = (score1 + score2 + score3 + score4 + score5) / 5

Return average

End function

Call main()