Pseudocode Examples

An algorithm is a procedure for solving a problem in terms of the actions to be executed and the order in which those actions are to be executed. An algorithm is merely the sequence of steps taken to solve a problem. The steps are normally "sequence," "selection, " "iteration," and a case-type statement.

In C, "sequence statements" are imperatives. The "selection" is the "if then else" statement, and the iteration is satisfied by a number of statements, such as the "while," " do," and the "for," while the case-type statement is satisfied by the "switch" statement.

Pseudocode is an artificial and informal language that helps programmers develop algorithms. Pseudocode is a "text-based" detail (algorithmic) design tool.

The rules of Pseudocode are reasonably straightforward. All statements showing "dependency" are to be indented. These include while, do, for, if, switch. Examples below will illustrate this notion.

Examples:

1.. If student's grade is greater than or equal to 60

    Print "passed"

else

    Print "failed"

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2. Set total to zero

Set grade counter to one

While grade counter is less than or equal to ten

    Input the next grade

    Add the grade into the total

Set the class average to the total divided by ten

Print the class average.

3.

Initialize total to zero

Initialize counter to zero

Input the first grade

while the user has not as yet entered the sentinel

    add this grade into the running total

    add one to the grade counter

    input the next grade (possibly the sentinel)

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if the counter is not equal to zero
        set the average to the total divided by the counter
        print the average
else
        print 'no grades were entered'
```

4.

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initialize passes to zero
initialize failures to zero
initialize student to one
while student counter is less than or equal to ten
        input the next exam result
        if the student passed
                add one to passes
        else
                add one to failures
add one to student counter
print the number of passes
print the number of failures
if eight or more students passed
        print "raise tuition"
```

Some Keywords That Should be Used

For looping and selection, The keywords that are to be used include Do While...EndDo; Do Until...Enddo; Case...EndCase; If...Endif; Call ... with (parameters); Call; Return ....; Return; When; Always use scope terminators for loops and iteration.

As verbs, use the words Generate, Compute, Process, etc. Words such as set, reset, increment, compute, calculate, add, sum, multiply, ... print, display, input, output, edit, test , etc. with careful indentation tend to foster desirable pseudocode.

Do not include data declarations in your pseudocode.
