8 A teacher is designing a program to process pseudocode projects written by her students.

Each student project is stored in a text file.

The process is split into a number of stages. Each stage performs a different task and creates a new file.

For example:

File name	Comment
MichaelAday_src.txt	Student project file produced by student Michael Aday
MichaelAday_S1.txt	File produced by stage 1
MichaelAday_S2.txt	File produced by stage 2

(a) Suggest a reason why the teacher's program has been split into a number of stages **and** give the benefit of producing a different file from each stage.

Reason ....

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Benefit ....

.... [2]

(b) The teacher has defined the first program module as follows:

Module	Description
DeleteSpaces()	• called with a parameter of type string representing a line of pseudocode from a student's project file • returns the line after removing any leading space characters The following example shows a string before and after the leading spaces have been removed: Before: `"    IF X2 > 13 THEN"` After: `"IF X2 > 13 THEN"`

Complete the pseudocode for module DeleteSpaces().

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FUNCTION DeleteSpaces(Line : STRING) RETURNS STRING
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ENDFUNCTION
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(c) Two modules are defined:

Module	Description
DeleteComment() (already written)	• called with a parameter of type string representing a line of pseudocode from a student's project file • returns the line after removing any comment
Stage_2()	• called with two parameters: ○ a string representing an input file name ○ a string representing an output file name • copies each line from the input file to the existing output file having first removed all leading spaces and comments from that line • does not write blank lines to the output file • outputs a final message giving the number of blank lines removed

Write pseudocode for module Stage_2().

Modules DeleteComment() and DeleteSpaces() must be used in your solution.

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