Assignment 0

Problem Statement:

We want to compare numbers read from numberplates. Each element that we want to compare looks like "CCNNNN" where C is a character from A-Z and N is a digit from 0 to 9.

For example: TS9548

We define the following total order on such numbers. Consider two distinct numbers $A = A_1A_2M_1M_2M_3M_4$ and $B = B_1B_2N_1N_2N_3N_4$.

We say $A < B$ if either:

- $A_1A_2 < B_1B_2$ in alphabetic order.
- or $A_1A_2 = B_1B_2$ and $M_1M_2M_3M_4 < N_1N_2N_3N_4$ as integers.

Examples:

- TS5480 < WB1915
- AP9540 < TS7480
- KL1452 < KL1457

Input Format:

- Each line of the input will give two distinct numbers A and B separated by a space.
- Each line ends with a '\n' character.
- End of input is indicated by EOD character. (You can simulate this character on linux terminals using Ctrl+D)

Output:

For each line read,

- Output 1 if $A < B$ followed by a '\n'
- Output 0 if $A \not< B$ followed by a '\n'

Then read the next input line and repeat the above.

Your program should end only when you read the EOD character.

Implementation Rules

- You are allowed to take the input as a string. However, string comparison has to be done manually.
- Write a separate procedure for string comparison.

Remarks

- Avoid using global variables.
- Use the input and output file provided to test your program offline.
- You can use the inputmodule.c (or cpp) file given with this assignment. Rename it to your rollnumber before you submit.