

# Assignment 0

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## 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

$A = A_1 A_2 M_1 M_2 M_3 M_4$  and  $B = B_1 B_2 N_1 N_2 N_3 N_4$ .

We say  $A < B$  if either:

- $A_1 A_2 < B_1 B_2$  in alphabetic order.
- or  $A_1 A_2 = B_1 B_2$  and  $M_1 M_2 M_3 M_4 < N_1 N_2 N_3 N_4$  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.

