

CS 366: Programming Assignment 1

Limits

Due 05 October 2005, 11:59 AM (before class)

Design a program that checks whether an input from the user is within some limits. Both the limits (MIN and MAX) are obtained as input from the user. For every number input by the user from then on, check if it is within limits (i.e., $MIN \leq num \leq MAX$), and print ‘In’ or ‘Out’ depending on whether the number is within limits or not. And this happens till the user inputs a terminal input (described below).

Termination Condition The program terminates upon a certain input. These inputs are $MIN - 1$ and $MAX + 1$. Also assume that the inputs for MIN and MAX won’t both be equal to their respective limits (i.e., -2^{31} and $2^{31} - 1$) simultaneously.

Errors with MIN and MAX If MIN and MAX are both equal to their respective limits, the program terminates right away, as any input is trivially within range. And if $MIN > MAX$, the program terminates with some error message.

Turnin The submission has two parts — electronic and hard-copy. The command for the electronic turnin is:

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turnin -c cs366 -p limits <files>
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The hard-copy contains a listing of your program. Also have a pseudo-code (or some high-level language) listing for the algorithm you used, the testing done and the status of your implementation (what works and what doesn’t). This is due in class.