

<https://youtu.be/IrBbPtcYwSg>

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; Program Template (lab9.asm)
; Program Description: Ask the user to enter both ranges j, K and the number num you want
to check. Output the suitable message based on the situation
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; Modified by:
.386
.model flat,stdcall
.stack 4096
ExitProcess PROTO, dwExitCode:DWORD
INCLUDE Irvine32.inc

.data
; declare variables here

Input1 BYTE "Enter J - begining of the range: ", 0 ;string for J
Input2 BYTE "Enter K - end of the range: ", 0 ;string for K
Input3 BYTE "Enter the value you want to check: ", 0 ;string for check value

Output1 BYTE " is within the range ", 0 ;string for within range
Output2 BYTE " is outside the range ", 0 ;string for outside range
Output3 BYTE " to ", 0 ;string

;intialize valiabiles
J DWORD ?
K DWORD ?
num DWORD ?

.code
main PROC
;write your code here

;prompt input for J
mov edx, OFFSET Input1
call WriteString
call ReadInt
mov J, eax

;prompt input for K
mov edx, OFFSET Input2
call WriteString
call ReadInt
mov K, eax

;prompt for check value
mov edx, OFFSET Input3
call WriteString
call ReadInt
mov num, eax

;move values into registers
mov eax, J
mov ebx, K
mov ecx, num
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;check if num is greater than J
cmp ecx, eax
jge check1
jmp outside

;check if num is greater than K
check1: cmp ecx, ebx
        jg outside

;inside output
inside: mov eax, num
        call WriteDec
        mov edx, OFFSET Output1
        call WriteString
        mov eax, J
        call WriteDec
        mov edx, OFFSET Output3
        call WriteString
        mov eax, K
        call WriteDec
        jmp bye

;outside output
outside: mov eax, num
        call WriteDec
        mov edx, OFFSET Output2
        call WriteString
        mov eax, J
        call WriteDec
        mov edx, OFFSET Output3
        call WriteString
        mov eax, K
        call WriteDec

;leave process
bye:

call DumpRegs

INVOKE ExitProcess, 0
main ENDP
; (insert additional procedures here)
END main

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