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| **Task-03:** |
| .MODEL small  .STACK 100h  .DATA  msg1 db "Enter a number: $"  msg2 db 0Dh, 0Ah, "Positive $"  msg3 db 0Dh, 0Ah, "Negative $"  .CODE  MAIN PROC  mov ax, @DATA  mov ds, ax  ; Display "Enter a number: "  mov ah, 09h  lea dx, msg1  int 21h    ; Read a number from user  mov ah, 01h  int 21h  mov bl, al ; Store the number in BL    ; Convert ASCII to integer  sub bl, 30h  ; Check if the number is positive or negative  cmp bl, 0  jl negative  jg positive  jmp endProgram ; If the input is 0, exit  positive:  mov ah, 09h  lea dx, msg2  int 21h  jmp endProgram  negative:  mov ah, 09h  lea dx, msg3  int 21h  endProgram:  mov ah, 4Ch  int 21h    MAIN ENDP  END MAIN  **Output:** |

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| **Task-04:** |
| .MODEL small  .STACK 100h  .DATA  msg1 db "Enter a number: $"  msg2 db 0Dh, 0Ah, "Less than 5 $"  msg3 db 0Dh, 0Ah, "Greater than 5 $"  msg4 db 0Dh, 0Ah, "Equal to 5 $"  .CODE  MAIN PROC  mov ax, @DATA  mov ds, ax  ; Store 5 in CL  mov cl, 5  ; Display "Enter a number: "  mov ah, 09h  lea dx, msg1  int 21h    ; Read a number from user  mov ah, 01h  int 21h  mov bl, al ; Store input in BL    ; Convert ASCII to integer  sub bl, 30h  ; Compare user input with CL  cmp bl, cl  jl lessThan  jg greaterThan  je equalTo  lessThan:  mov ah, 09h  lea dx, msg2  int 21h  jmp endProgram  greaterThan:  mov ah, 09h  lea dx, msg3  int 21h  jmp endProgram  equalTo:  mov ah, 09h  lea dx, msg4  int 21h  endProgram:  mov ah, 4Ch  int 21h    MAIN ENDP  END MAIN  **Output:** |

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| **Task-06:** |
| .MODEL small  .STACK 100h  .DATA  msg1 db "Enter a character: $"  msg2 db 0Dh, 0Ah, "$" ; New line before printing the character  msg3 db 0Dh, 0Ah, "Thank you.$" ; Message at the end  .CODE  MAIN PROC  mov ax, @DATA  mov ds, ax  ; Display "Enter a character: "  mov ah, 09h  lea dx, msg1  int 21h    ; Read a character from user  mov ah, 01h  int 21h  mov bl, al ; Store input character in BL  ; Print a new line  mov ah, 09h  lea dx, msg2  int 21h  ; Initialize counter to 50  mov cx, 50  printLoop:  ; Print the character stored in BL  mov ah, 02h  mov dl, bl  int 21h  ; Decrement counter and loop until zero  dec cx  jnz printLoop  ; Print "Thank you."  mov ah, 09h  lea dx, msg3  int 21h  ; Exit program  mov ah, 4Ch  int 21h    MAIN ENDP  END MAIN  **Output:** |

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| **Task-07:** |
| .MODEL small  .STACK 100h  .DATA  msg1 db "Enter two characters: $"  msg2 db 0Dh, 0Ah, "$" ; New line  .CODE  MAIN PROC  mov ax, @DATA  mov ds, ax  ; Display "Enter two characters: "  mov ah, 09h  lea dx, msg1  int 21h  ; Read first character  mov ah, 01h  int 21h  mov bl, al ; Store first character in BL  ; Read second character  mov ah, 01h  int 21h  mov bh, al ; Store second character in BH  ; Print a new line  mov ah, 09h  lea dx, msg2  int 21h  ; Print first character  mov ah, 02h  mov dl, bl  int 21h  ; Print second character  mov ah, 02h  mov dl, bh  int 21h  ; Print a new line  mov ah, 09h  lea dx, msg2  int 21h  ; Print first character again  mov ah, 02h  mov dl, bl  int 21h  ; Print second character again  mov ah, 02h  mov dl, bh  int 21h  ; Exit program  mov ah, 4Ch  int 21h    MAIN ENDP  END MAIN  **Output:** |