Task-4:

```
Code:
.MODEL small
.STACK 100h
.DATA
  msg1 db "Enter a character: $"
  msg2 db "Thank you.$"
.CODE
  MAIN PROC
    mov ax, @DATA
    mov ds, ax
    ; Display prompt message
    mov ah, 09h
    lea dx, msg1
    int 21h
    ; Read a character
    mov ah, 01h
    int 21h
    mov bl, al ; store input character into BL
    ;New Line
    mov ah,02h
    mov dx,0Ah
    int 21h
    mov dx,0Dh
    int 21h
    ; Set CX = 50 for loop
    mov cx, 50
  print loop:
    mov ah, 02h
    mov dl, bl ; load character into DL
    int 21h
    loop print loop
```

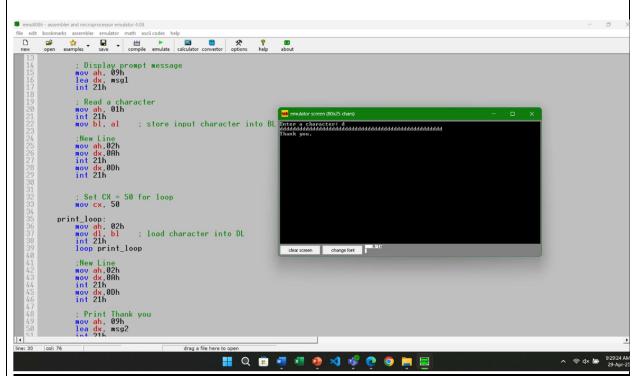
;New Line mov ah,02h mov dx,0Ah int 21h mov dx,0Dh int 21h

; Print Thank you mov ah, 09h lea dx, msg2 int 21h

; Exit program End: mov ah, 4Ch int 21h

MAIN ENDP END MAIN

Output:



Task-5: Code: .MODEL small .STACK 100h .DATA msg1 db "Enter characters: \$" msg2 db "Thank you.\$" .CODE MAIN PROC mov ax, @DATA mov ds, ax mov ah, 09h lea dx, msg1 int 21h mov ah, 01h int 21h mov bl, al mov ah, 01h int 21h mov bh, al mov ah, 02h mov dl, 0Dh int 21h mov dl, 0Ah int 21h cmp bl, bh

jg swap letters

```
swap_letters:
  xchg bl, bh
  jmp print_letters
print_letters:
  mov ah, 02h
  mov dl, bl
  int 21h
  mov ah, 02h
  mov dl, bh
  int 21h
  mov ah, 02h
  mov dl, 0Dh
  int 21h
  mov dl, 0Ah
  int 21h
  mov ah, 09h
  lea dx, msg2
  int 21h
  End:
  mov ah, 4Ch
  int 21h
MAIN ENDP
END MAIN
```

