

# COMPUTER ORGANIZATION AND ARCHITECTURE

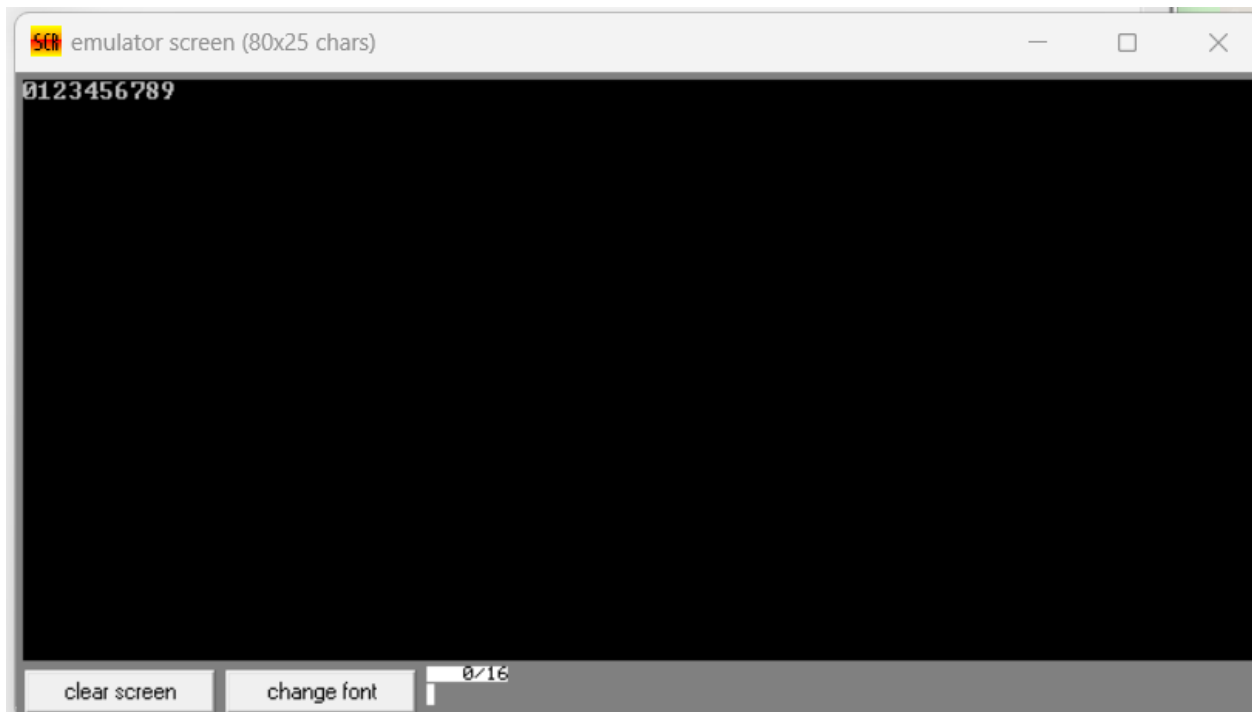
1.a) Write a program in assembly language to print the numbers from 0 to 9.

## CODE:

```
org 100h      ; Set starting point for .COM programs
mov cx, 10    ; Set loop counter to 10 (for numbers 0 to 9)
mov dl, '0'   ; Initialize DL with ASCII code for '0'

print_loop:
mov ah, 02h   ; Function to print character in DL
int 21h       ; Call DOS interrupt to display character
inc dl        ; Increment DL to get next number
loop print_loop ; Loop until CX is zero
mov ah, 4Ch   ; Exit program
int 21h
```

## OUTPUT:



(b) Write an assembly language program to print the characters from A to Z in reverse order.

**CODE:**

```
org 100h      ; Set starting point for .COM programs

mov cx, 26    ; Set loop counter to 26 (for characters A to Z)
mov dl, 'Z'   ; Initialize DL with ASCII code for 'Z'

print_loop:
    mov ah, 02h ; Function to print character in DL
    int 21h     ; Call DOS interrupt to display character
    dec dl      ; Decrement DL to get the previous character
loop print_loop ; Loop until CX is zero
mov ah, 4Ch    ; Exit program
int 21h
```

**OUTPUT:**



2. (a) Write a program in assembly language to print the numbers from 0 to 9 in reverse order.

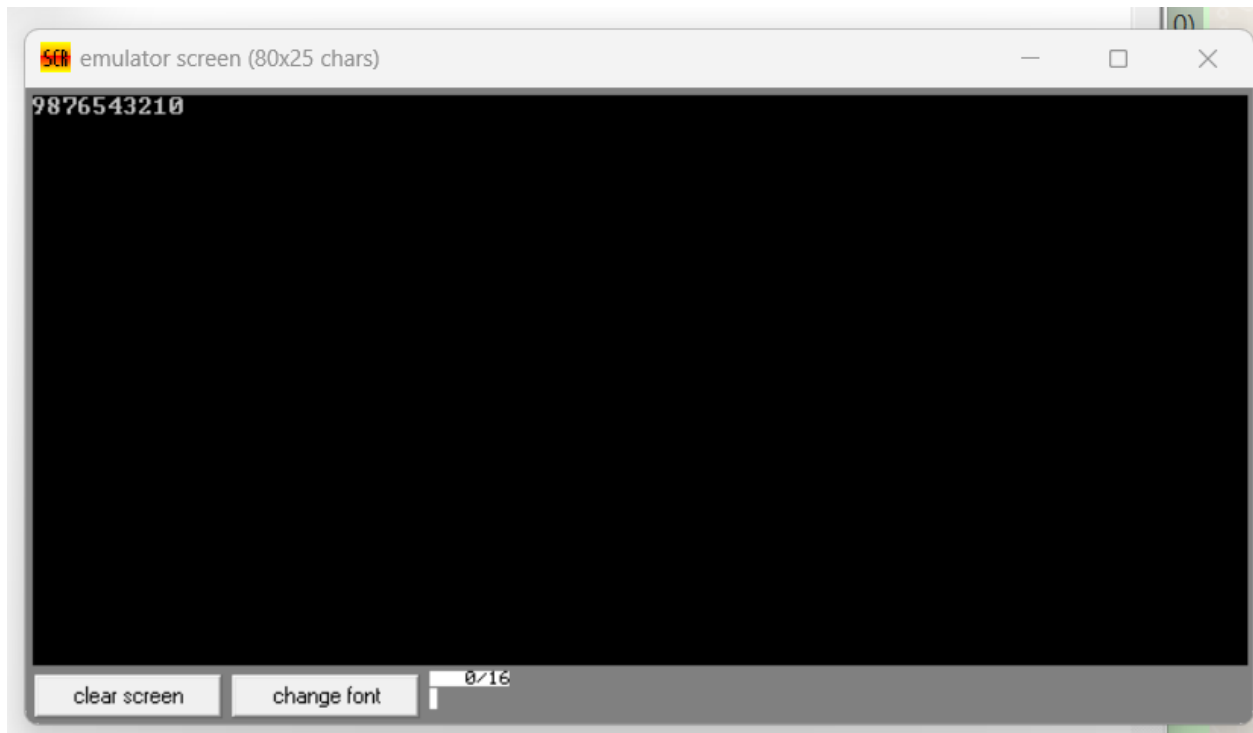
**CODE:**

```
org 100h          ; Set starting point for .COM programs

mov cx, 10        ; Set loop counter to 10 (for numbers 9 to 0)
mov dl, '9'       ; Initialize DL with ASCII code for '9'

print_reverse_loop:
    mov ah, 02h    ; Function to print character in DL
    int 21h        ; Call DOS interrupt to display character
    dec dl         ; Decrement DL to get the previous number
    loop print_reverse_loop ; Loop until CX is zero
mov ah, 4Ch        ; Exit program
int 21h
```

**OUTPUT:**

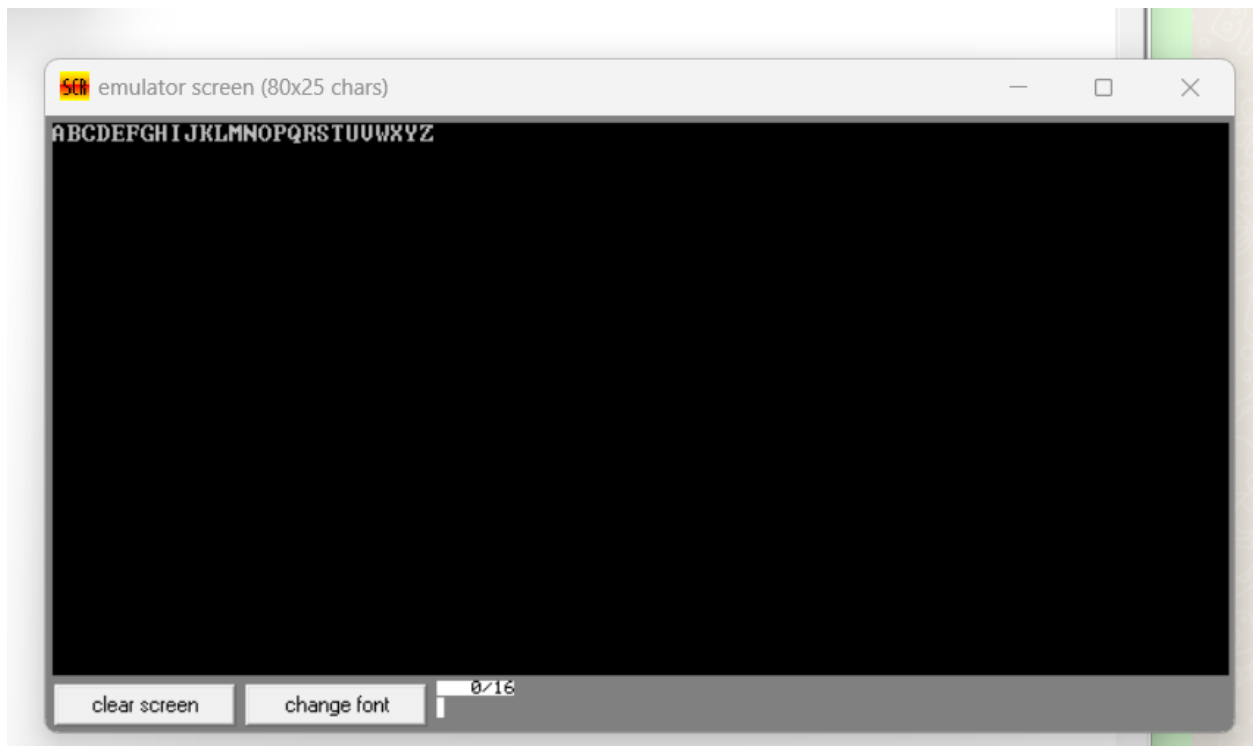


(b) Write an assembly language program to print the characters from A to Z.

**CODE:**

```
org 100h      ; Set starting point for .COM programs
mov cx, 26    ; Set loop counter to 26 (for letters A to Z)
mov dl, 'A'    ; Initialize DL with ASCII code for 'A'
print_char_loop:
    mov ah, 02h ; Function to print character in DL
    int 21h     ; Call DOS interrupt to display character
    inc dl      ; Increment DL to get next letter
    loop print_char_loop ; Loop until CX is zero
mov ah, 4Ch    ; Exit program
int 21h
```

**OUTPUT:**



**GITHUB LINK:** <https://github.com/vishnupriyavayya/COA-LAB-TASK-10>

The screenshot shows the GitHub repository page for **COA-LAB-TASK-10** by user **vishnupriyavayya**. The repository is public and has 1 branch (main) and 0 tags. It contains 4 files: `mycode1.lab task 10.asm`, `mycode2.lab task 10.asm`, `mycode3.lab task 10.asm`, and `mycode4.lab task 10.asm`, all added 10 hours ago. The repository has 0 stars, 1 watching, and 0 forks. The README section is empty, with a prompt to "Add a README". The right sidebar shows the "About" section with no description, website, or topics provided. The "Releases" section shows no releases published. The "Packages" section shows no packages published. The "Languages" section shows 100.0% Assembly.

COA-LAB-TASK-10 Public

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Assembly 100.0%

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README

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