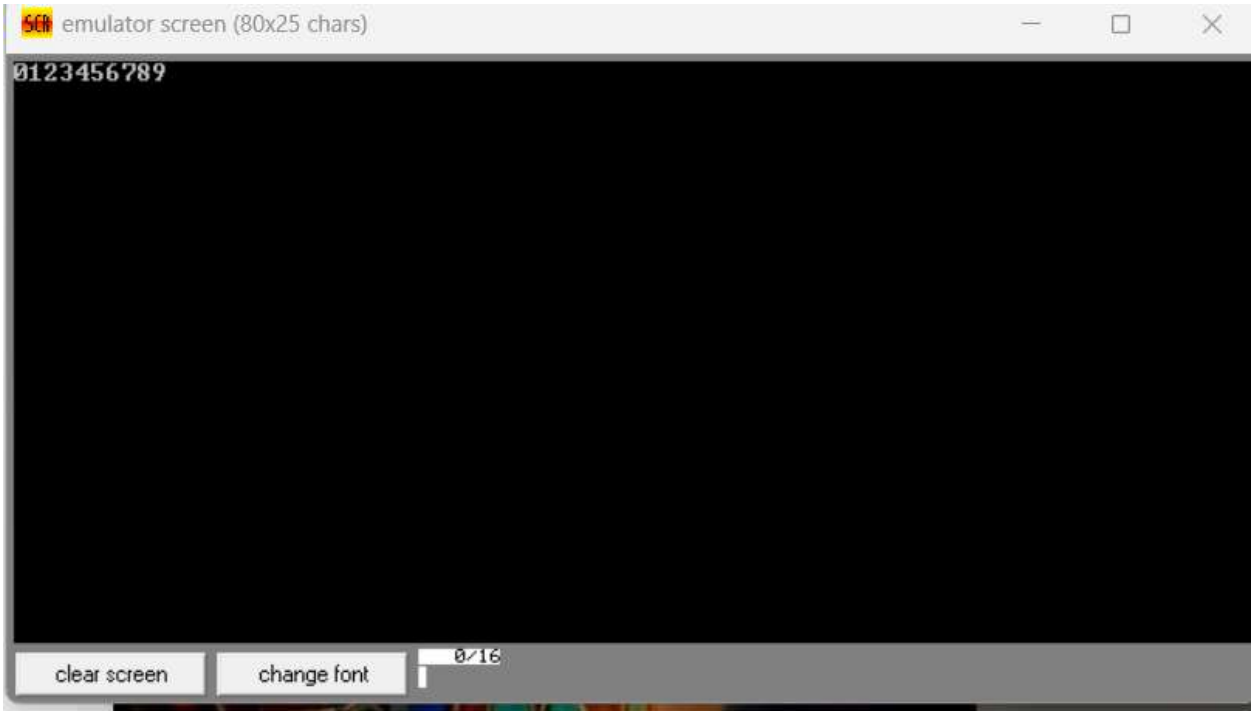
1.a. Write a program in assembly language to print the numbers from 0 to 9.

CODE:

```
org 100h          ; Start at offset 100h
mov cx, 10        ; Set loop counter to 10
mov dl, '0'       ; Start with ASCII code of '0'
print_loop:
   mov ah, 2      ; DOS interrupt for character output
   int 21h        ; Print character in DL
   inc dl         ; Increment DL to next character
   loop print_loop
mov ah, 4Ch       ; DOS terminate program function
int 21h           ; Terminate the program
```



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

CODE:

```
ORG 100h          ; Start at offset 100h for .COM file format
mov cx, 26        ; Set loop counter to 26 (for letters A to Z)
mov dl, 'Z'       ; Start with ASCII code of 'Z'
print_loop:
   mov ah, 2      ; DOS interrupt for character output
   int 21h        ; Print character in DL
   dec dl         ; Decrement DL to get the previous character
   loop print_loop ; Loop until CX reaches 0
mov ah, 4Ch       ; DOS terminate program function
int 21h           ; Terminate the program
```

Practice set:

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

CODE:

```
ORG 100h          ; Start at offset 100h for .COM file format
mov cx, 10        ; Set loop counter to 10 (for numbers 9 to 0)
mov dl, '9'       ; Start with ASCII code of '9'
print_loop:
   mov ah, 2      ; DOS interrupt for character output
   int 21h        ; Print character in DL
   dec dl         ; Decrement DL to get the previous character
   loop print_loop ; Loop until CX reaches 0
```

```
mov ah, 4Ch       ; DOS terminate program function
int 21h           ; Terminate the program
```

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

CODE:

```
ORG 100h          ; Start at offset 100h for .COM file format
mov cx, 26        ; Set loop counter to 26 (for letters A to Z)
mov dl, 'A'       ; Start with ASCII code of 'A'
print_loop:
   mov ah, 2      ; DOS interrupt for character output
   int 21h        ; Print character in DL
   inc dl         ; Increment DL to next character
   loop print_loop ; Loop until CX reaches 0
```

```
mov ah, 4Ch       ; DOS terminate program function
int 21h           ; Terminate the program
```