**COAL LAB 9**

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HOME

**TASK 1:**

.model small

.stack 100h

.data

msg1 DB 10,13, "Enter First Number (A): $"

msg2 DB 10,13, "Enter Second Number (B): $"

msg\_gt DB 10,13, "A is greater than B$"

msg\_lt DB 10,13, "A is less than B$"

msg\_eq DB 10,13, "A is equal to B$"

.code

main proc

mov ax, @data

mov ds, ax

mov dx, offset msg1

mov ah, 9

int 21h

mov ah, 1

int 21h

mov bl, al

mov dx, offset msg2

mov ah, 9

int 21h

mov ah, 1

int 21h

mov bh, al

mov al, bl

cmp al, bh

je label\_equal

ja label\_greater

jb label\_less

label\_equal:

mov dx, offset msg\_eq

mov ah, 9

int 21h

jmp exit\_prog

label\_greater:

mov dx, offset msg\_gt

mov ah, 9

int 21h

jmp exit\_prog

label\_less:

mov dx, offset msg\_lt

mov ah, 9

int 21h

exit\_prog:

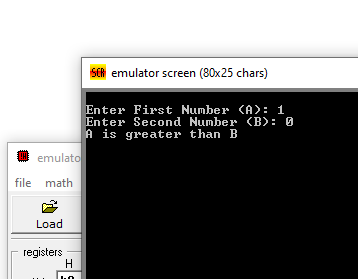
mov ah, 4ch

int 21h

main endp

end main

**Output:**



**TASK = 2:**

.model small

.stack 100h

.data

msg1 db 10,13, "Enter a one-digit number (0-9): $"

msg\_zero db 10,13, "The number is Zero.$"

msg\_pos db 10,13, "The number is Positive.$"

.code

main proc

mov ax, @data

mov ds, ax

mov dx, offset msg1

mov ah, 9

int 21h

mov ah, 1

int 21h

mov bl, al

cmp bl, '0'

je is\_zero

mov dx, offset msg\_pos

mov ah, 9

int 21h

jmp exit\_prog

is\_zero:

mov dx, offset msg\_zero

mov ah, 9

int 21h

exit\_prog:

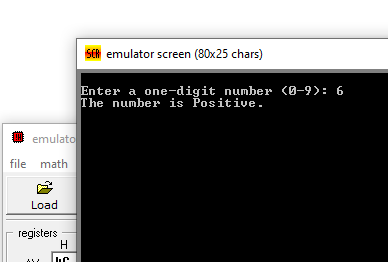
mov ah, 4Ch

int 21h

main endp

end main

**Output:**



**TASK 3:**

.model small

.stack 100h

.data

msg1 db 10,13, "Enter a one-digit number (0-9): $"

msg\_even db 10,13, "The number is Even.$"

msg\_odd db 10,13, "The number is Odd.$"

.code

main proc

mov ax, @data

mov ds, ax

mov dx, offset msg1

mov ah, 9

int 21h

mov ah, 1

int 21h

sub al, '0'

mov bl, al

mov ah, 0

mov al, bl

and al, 1

cmp al, 0

je print\_even

print\_odd:

mov dx, offset msg\_odd

mov ah, 9

int 21h

jmp exit\_prog

print\_even:

mov dx, offset msg\_even

mov ah, 9

int 21h

exit\_prog:

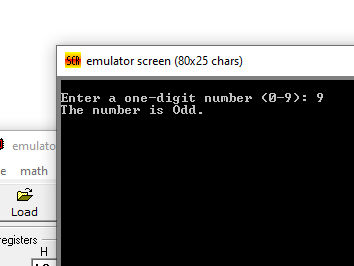
mov ah, 4Ch

int 21h

main endp

end main

**Output:**



**TASK 4:**

.model small

.stack 100h

.data

msg1 db 10,13, "Enter your marks (0-9): $"

msg\_less db 10,13, "Need hard work.$"

msg\_more db 10,13, "Satisfactory.$"

.code

main proc

mov ax, @data

mov ds, ax

mov dx, offset msg1

mov ah, 9

int 21h

mov ah, 1

int 21h

sub al, '0'

cmp al, 5

jl label\_less

mov dx, offset msg\_more

mov ah, 9

int 21h

jmp exit\_prog

label\_less:

mov dx, offset msg\_less

mov ah, 9

int 21h

exit\_prog:

mov ah, 4Ch

int 21h

main endp

end main

**Output:**

