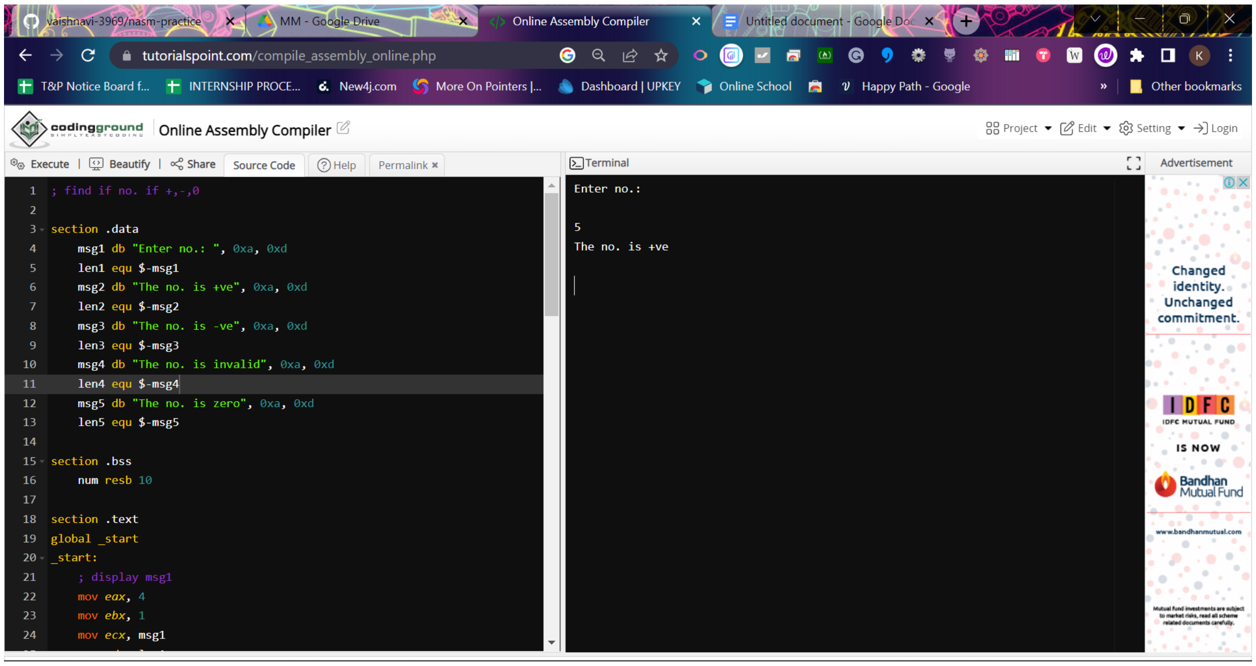
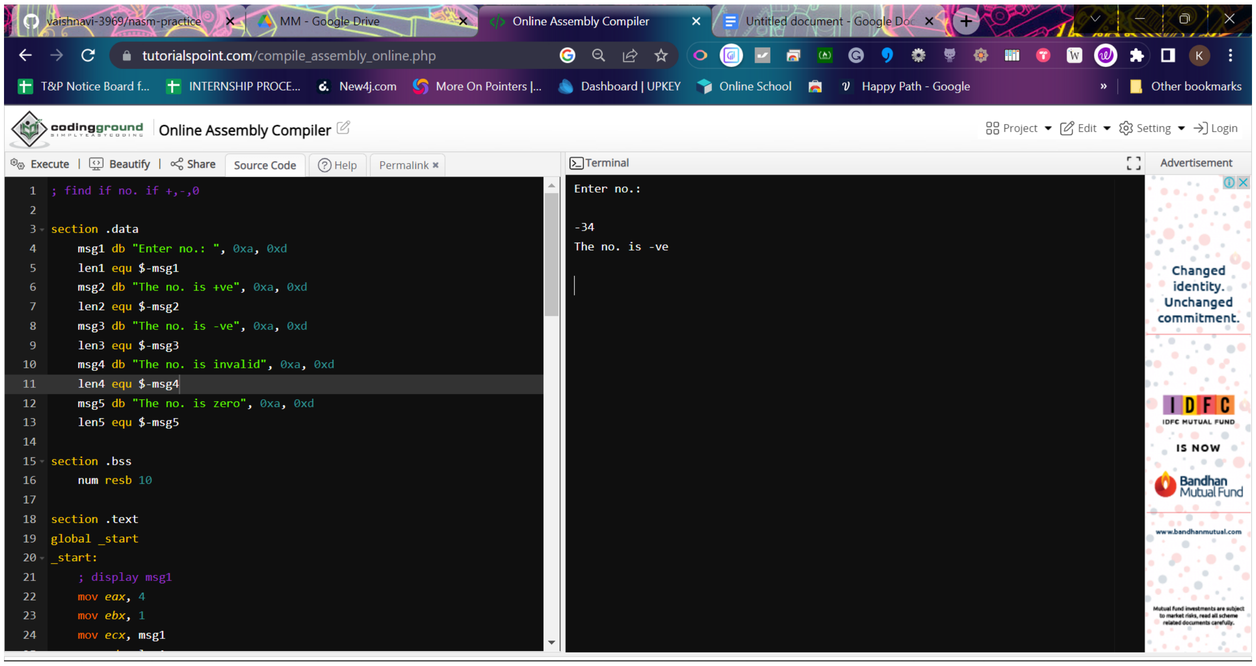
```
; find if no. if +,-,0

section .data
    msg1 db "Enter no.: ", 0xa, 0xd
    len1 equ $-msg1
    msg2 db "The no. is +ve", 0xa, 0xd
    len2 equ $-msg2
    msg3 db "The no. is -ve", 0xa, 0xd
    len3 equ $-msg3
    msg4 db "The no. is invalid", 0xa, 0xd
    len4 equ $-msg4
    msg5 db "The no. is zero", 0xa, 0xd
    len5 equ $-msg5

section .bss
    num resb 10

section .text
global _start
_start:
    ; display msg1
    mov eax, 4
    mov ebx, 1
    mov ecx, msg1
    mov edx, len1
    int 80h

    ; taking input from user
    mov eax, 3
    mov ebx, 0
    mov ecx, num
    mov edx, 10
    int 80h

    mov eax, [num]
    cmp al, '+'; compare if no. is +ve
    je positive ; jump is no. is +ve

    cmp al, '-';compare if the no. is -ve
    je negative; jump if no. is negative

    cmp al,'0'
    je zero

    cmp al, 39h ; compare if no. is valid
    jae invalid; jump if no. is invalid

    positive:
        mov eax, 4
        mov ebx, 1
        mov ecx, msg2
        mov edx, len2
        int 80h
        jmp exit;
    negative:
        mov eax,4
        mov ebx, 1
        mov ecx, msg3
        mov edx, len3
        int 80h
        jmp exit

    invalid:
        mov eax, 4
        mov ebx, 1
        mov ecx, msg4
        mov edx, len4
        int 80h
        jmp exit

    zero:
        mov eax, 4
        mov ebx, 1
        mov ecx, msg5
        mov edx, len5
        int 80h
        jmp exit
    exit:
        mov eax, 1
        mov ebx, 0
        int 80h

    ; ------------------------------------------
    mov eax, 1
    mov ebx, 0
    int 80h
```



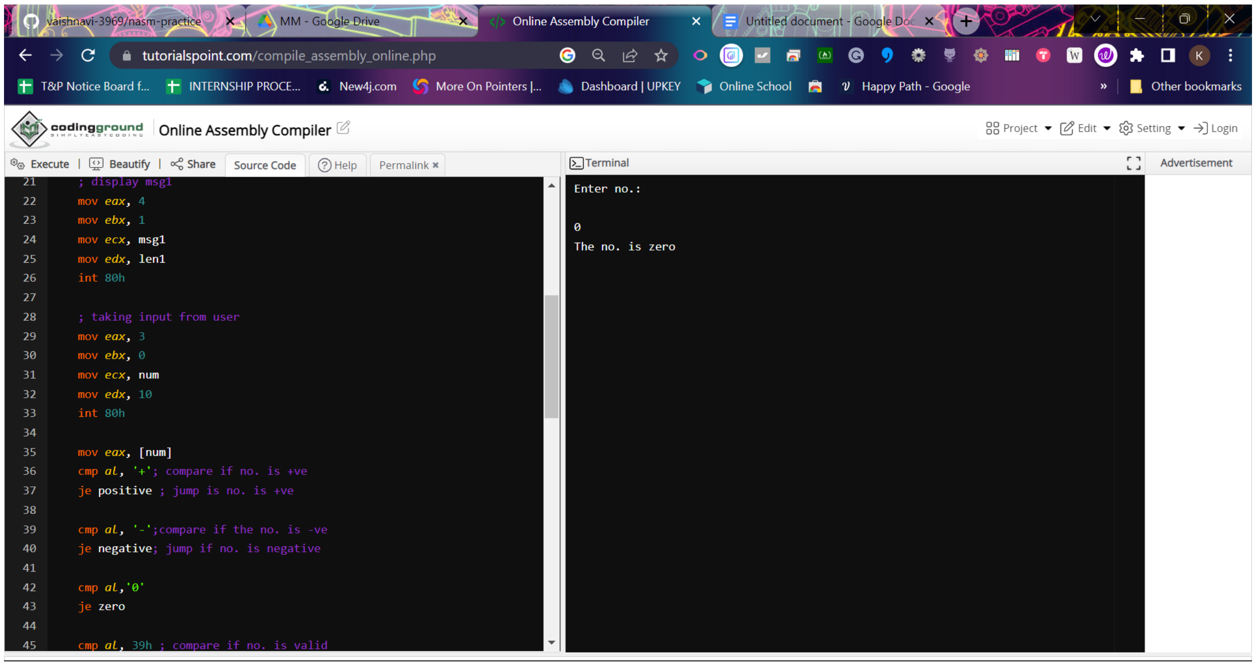
```
; find if no. if +,-,0

section .data
    msg1 db "Enter no.: ", 0xa, 0xd
    len1 equ $-msg1
    msg2 db "The no. is +ve", 0xa, 0xd
    len2 equ $-msg2
    msg3 db "The no. is -ve", 0xa, 0xd
    len3 equ $-msg3
    msg4 db "The no. is invalid", 0xa, 0xd
    len4 equ $-msg4
    msg5 db "The no. is zero", 0xa, 0xd
    len5 equ $-msg5

section .bss
    num resb 10

section .text
global _start
_start:
    ; display msg1
    mov eax, 4
    mov ebx, 1
    mov ecx, msg1
```

```
Enter no.:

5
The no. is +ve
```



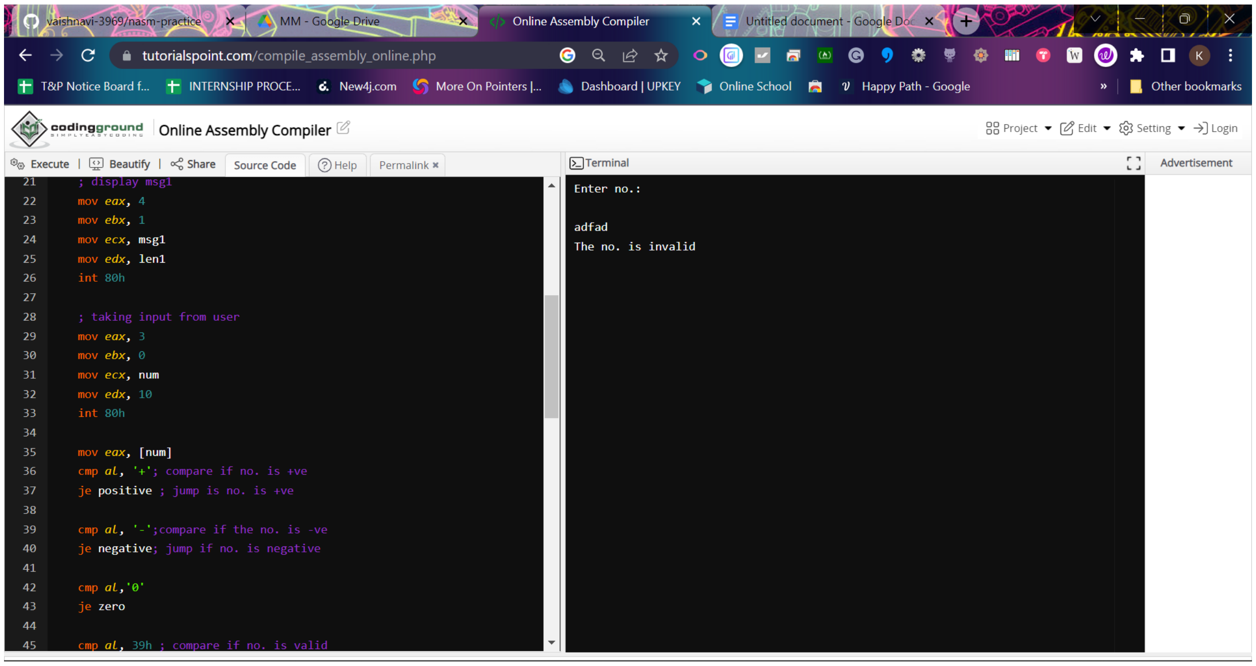
```
; find if no. if +,-,0

section .data
    msg1 db "Enter no.: ", 0xa, 0xd
    len1 equ $-msg1
    msg2 db "The no. is +ve", 0xa, 0xd
    len2 equ $-msg2
    msg3 db "The no. is -ve", 0xa, 0xd
    len3 equ $-msg3
    msg4 db "The no. is invalid", 0xa, 0xd
    len4 equ $-msg4
    msg5 db "The no. is zero", 0xa, 0xd
    len5 equ $-msg5

section .bss
    num resb 10

section .text
global _start
_start:
    ; display msg1
    mov eax, 4
    mov ebx, 1
    mov ecx, msg1
```

```
Enter no.:

-34
The no. is -ve
```



```
    ; display msg1
    mov eax, 4
    mov ebx, 1
    mov ecx, msg1
    mov edx, len1
    int 80h

    ; taking input from user
    mov eax, 3
    mov ebx, 0
    mov ecx, num
    mov edx, 10
    int 80h

    mov eax, [num]
    cmp al, '+'; compare if no. is +ve
    je positive ; jump is no. is +ve

    cmp al, '-';compare if the no. is -ve
    je negative; jump if no. is negative

    cmp al,'0'
    je zero

    cmp al, 39h ; compare if no. is valid
```

```
Enter no.:

0
The no. is zero
```



```
    ; display msg1
    mov eax, 4
    mov ebx, 1
    mov ecx, msg1
    mov edx, len1
    int 80h

    ; taking input from user
    mov eax, 3
    mov ebx, 0
    mov ecx, num
    mov edx, 10
    int 80h

    mov eax, [num]
    cmp al, '+'; compare if no. is +ve
    je positive ; jump is no. is +ve

    cmp al, '-';compare if the no. is -ve
    je negative; jump if no. is negative

    cmp al,'0'
    je zero

    cmp al, 39h ; compare if no. is valid
```

```
Enter no.:

adfad
The no. is invalid
```

```
section .data
    msg_input db 'Enter no.: ', 10
    len_input equ $-msg_input
    msg_positive db "The no. is positive", 10
    len_positive equ $-msg_positive
    msg_negative db "The no. is negative", 10
    len_negative equ $-msg_negative
    msg_zero db "The no. is zero", 10
    len_zero equ $-msg_zero
    msg_invalid db "The no. is invalid", 10
    len_invalid equ $-msg_invalid

section .bss
    num resb 10

section .data
global _start
_start:
    ; displaying msg
    mov eax, 4
    mov ebx, 1
    mov ecx, msg_input
    mov edx, len_input
    int 80h

    ; taking input
    mov eax, 3
    mov ebx, 0
    mov ecx, num
    mov edx, 10
    int 80h

    ; performing operations
    mov eax, [num]

    cmp al, '+'
    je positive

    cmp al, '-'
    je negative

    cmp al, '0'
    je zero

    cmp al, '9'
    jae invalid

    positive:
        mov eax, 4
        mov ebx, 1
        mov ecx, msg_positive
        mov edx, len_positive
        int 80h
        jmp exit

    negative:
        mov eax, 4
        mov ebx, 1
        mov ecx, msg_negative
        mov edx, len_negative
        int 80h
        jmp exit

    zero:
        mov eax, 4
        mov ebx, 1
        mov ecx, msg_zero
        mov edx, len_zero
        int 80h
        jmp exit

    invalid:
        mov eax, 4
        mov ebx, 1
        mov ecx, msg_invalid
        mov edx, len_invalid
        int 80h
        jmp exit

    exit:
        mov eax,1
        mov ebx, 0
        int 80h
```

```
section .data
  prompt db "Enter a number: ", 10, 0
  len_prompt equ $-prompt
  positive db "The number is positive.", 10, 0
  len_positive equ $-positive
  negative db "The number is negative.", 10, 0
  len_negative equ $-negative
  zero db "The number is zero.", 10, 0
  len_zero equ $-zero
```

```
    invalid db "Invalid input.", 10, 0
    len_invalid equ $-invalid

section .bss
    input resb 10

section .text
global _start

_start:
    ; Prompt the user for input
    mov eax, 4
    mov ebx, 1
    mov ecx, prompt
    mov edx, len_prompt
    int 80h

    ; Read the input
    mov eax, 3
    mov ebx, 0
    mov ecx, input
    mov edx, 2
    int 80h

    ; Convert input to a signed integer
   mov eax,[input]
   cmp al, '+'
   je positive_result
   cmp al,'-'
   je negative_result
   cmp al,'0'
   je zero_result
   cmp al, '9'
   jae invalid_result

positive_result:
    mov eax, 4
    mov ebx, 1
    mov ecx, positive
    mov edx, len_positive
    int 80h
    jmp exit_program

negative_result:
    mov eax, 4
    mov ebx, 1
    mov ecx, negative
    mov edx, len_negative
    int 80h
    jmp exit_program

zero_result:
    mov eax, 4
    mov ebx, 1
    mov ecx, zero
    mov edx, len_zero
    int 80h
    jmp exit_program

invalid_result:
    mov eax, 4
    mov ebx, 1
    mov ecx, invalid
    mov edx, len_invalid
    int 80h
    jmp exit_program

exit_program:
    ; Exit program
    mov eax, 1
    mov ebx, 0
    int 80h

    mov eax, 1
    mov ebx, 0
    int 80h
```