# Lab Report 3

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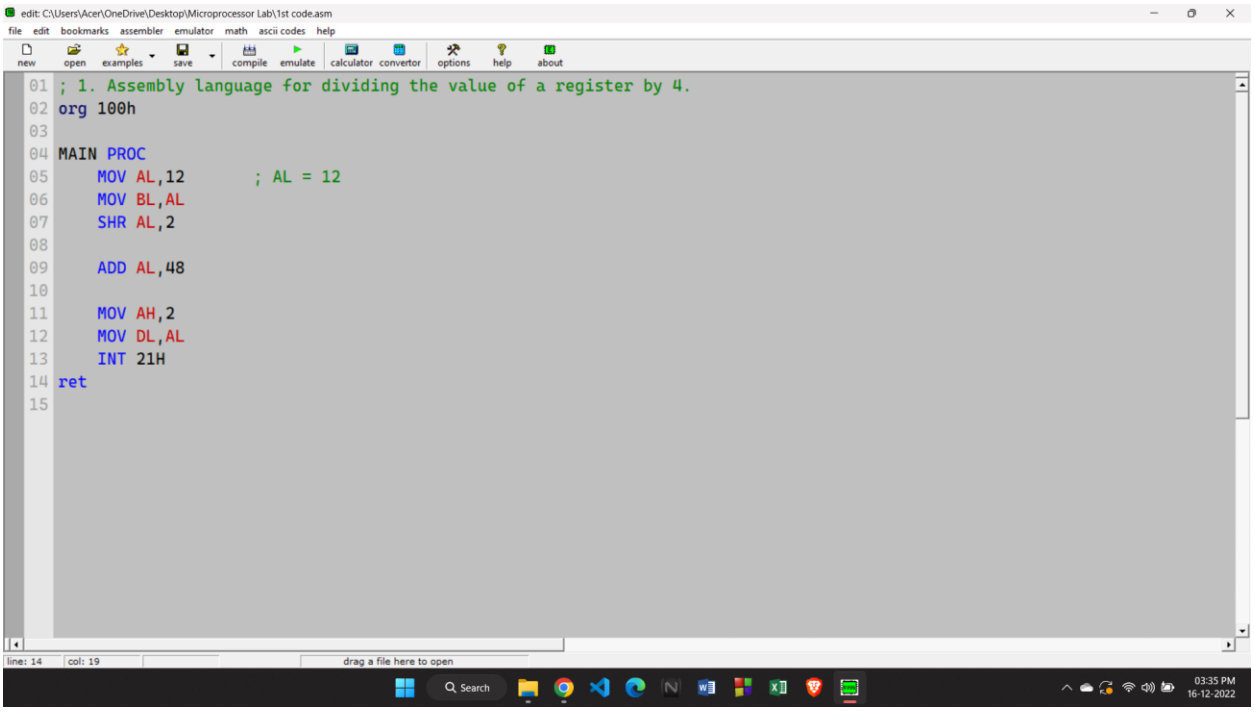
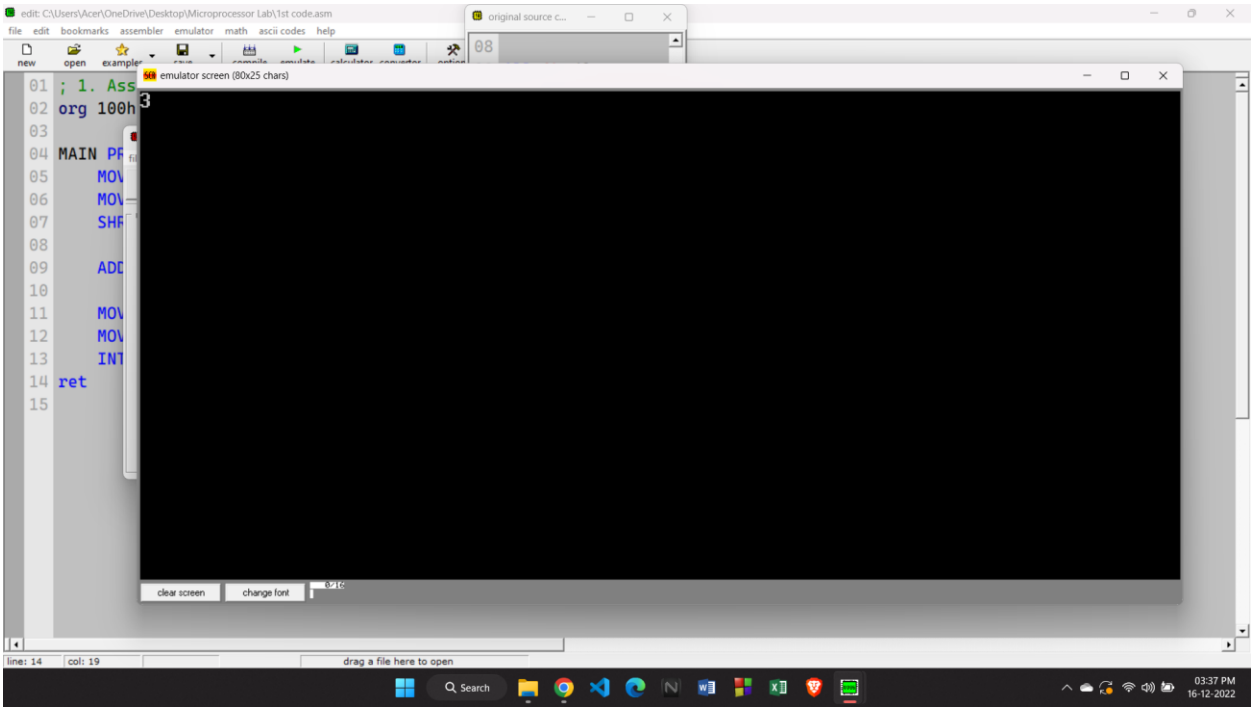
**ID -** 202003112

## 1. Assembly language for dividing the value of a register by 4.

**CODE:**

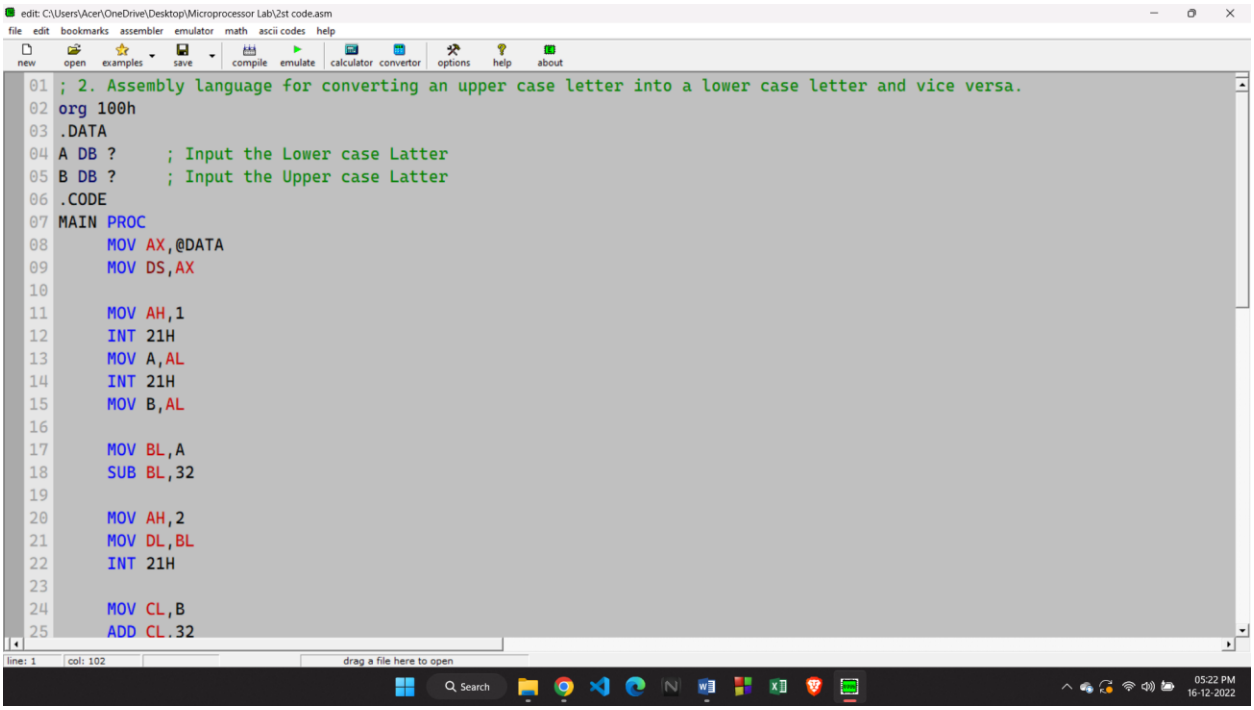



**OUTPUT:**




## 2. Assembly language for converting an upper case letter into a lower case letter and vice versa.

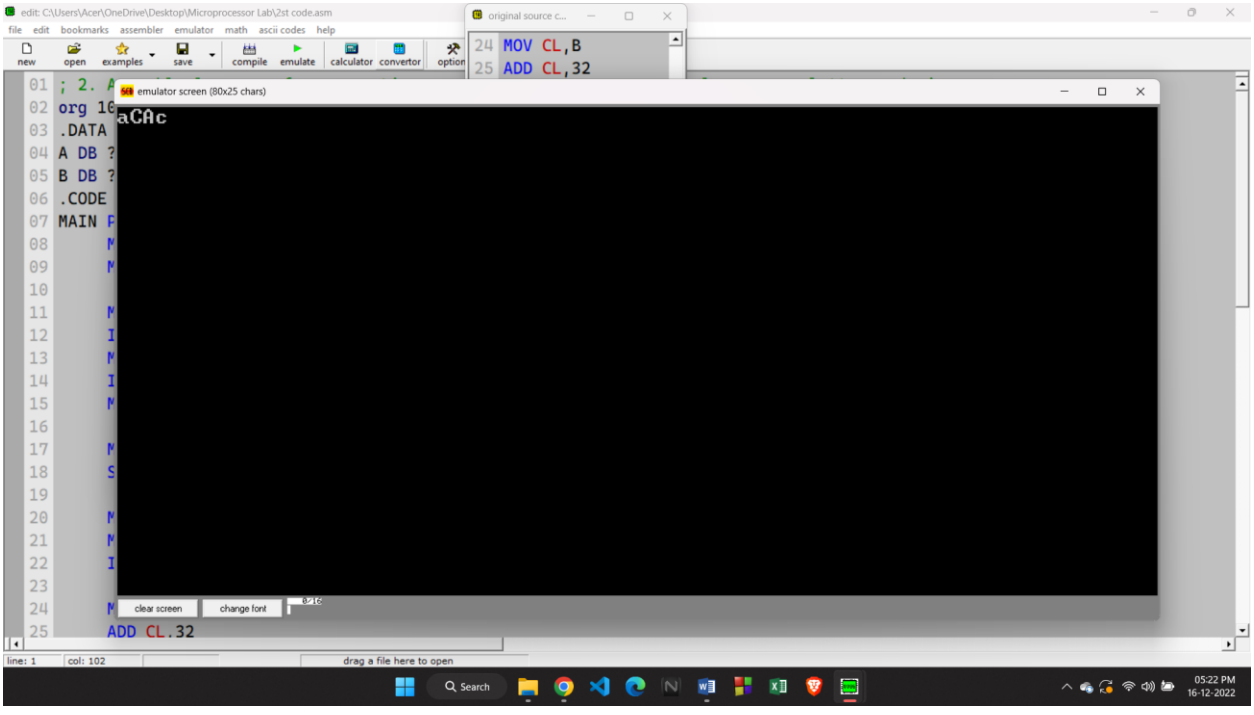
**CODE:**




```
; 2. Assembly language for converting an upper case letter into a lower case letter and vice versa.
org 100h
.DATA
A DB ?      ; Input the Lower case Latter
B DB ?      ; Input the Upper case Latter
.CODE
MAIN PROC
     MOV AX,@DATA
     MOV DS,AX

     MOV AH,1
     INT 21H
     MOV A,AL
     INT 21H
     MOV B,AL

     MOV BL,A
     SUB BL,32

     MOV AH,2
     MOV DL,BL
     INT 21H

     MOV CL,B
     ADD CL.32
```

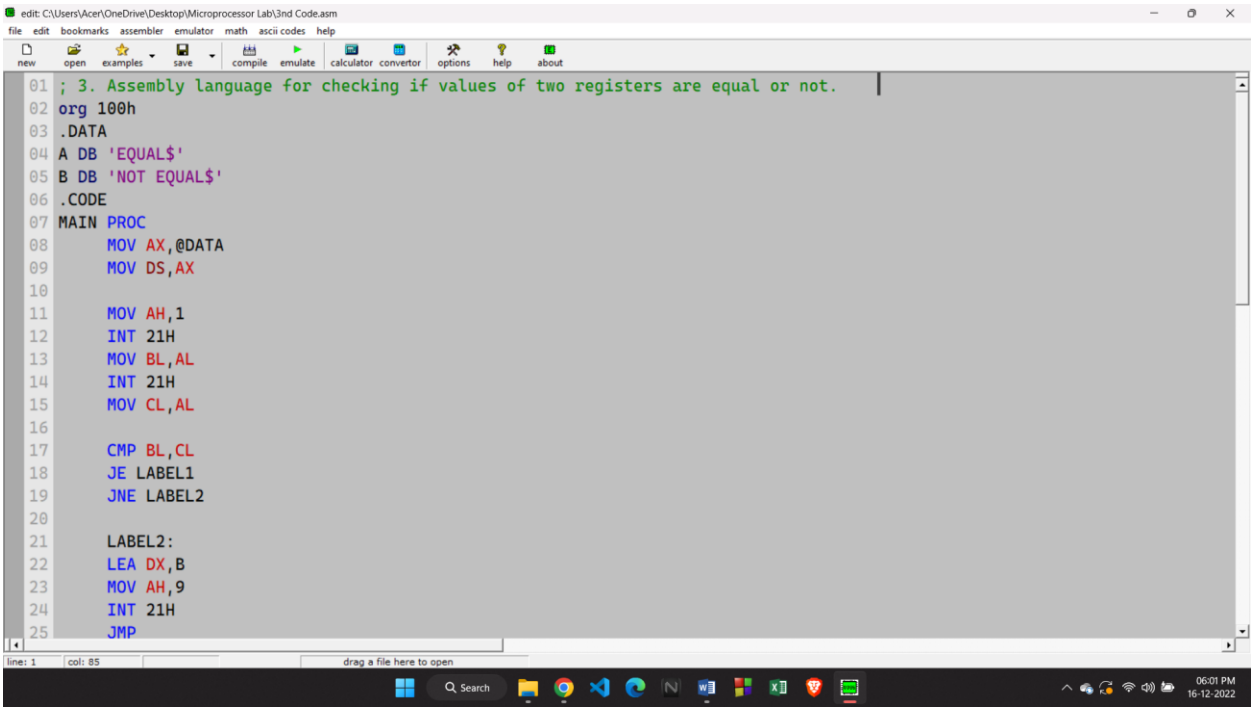
```
MAIN PROC
    MOV AX,@DATA
    MOV DS,AX

    MOV AH,1
    INT 21H
    MOV A,AL
    INT 21H
    MOV B,AL

    MOV BL,A
    SUB BL,32

    MOV AH,2
    MOV DL,BL
    INT 21H

    MOV CL,B
    ADD CL,32

    MOV AH,2
    MOV DL,CL
    INT 21H
ret
```

**OUTPUT:**




## 3. Assembly language for checking if values of two registers are equal or not.

**CODE:**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new open examples save compile emulate calculator convertor options help about
; 3. Assembly language for checking if values of two registers are equal or not.
org 100h
.DATA
A DB 'EQUAL$'
B DB 'NOT EQUAL$'
.CODE
MAIN PROC
MOV AX,@DATA
MOV DS,AX
MOV AH,1
INT 21H
MOV BL,AL
INT 21H
MOV CL,AL
CMP BL,CL
JE LABEL1
JNE LABEL2
LABEL2:
LEA DX,B
MOV AH,9
INT 21H
JMP
line: 1 col: 85
drag a file here to open
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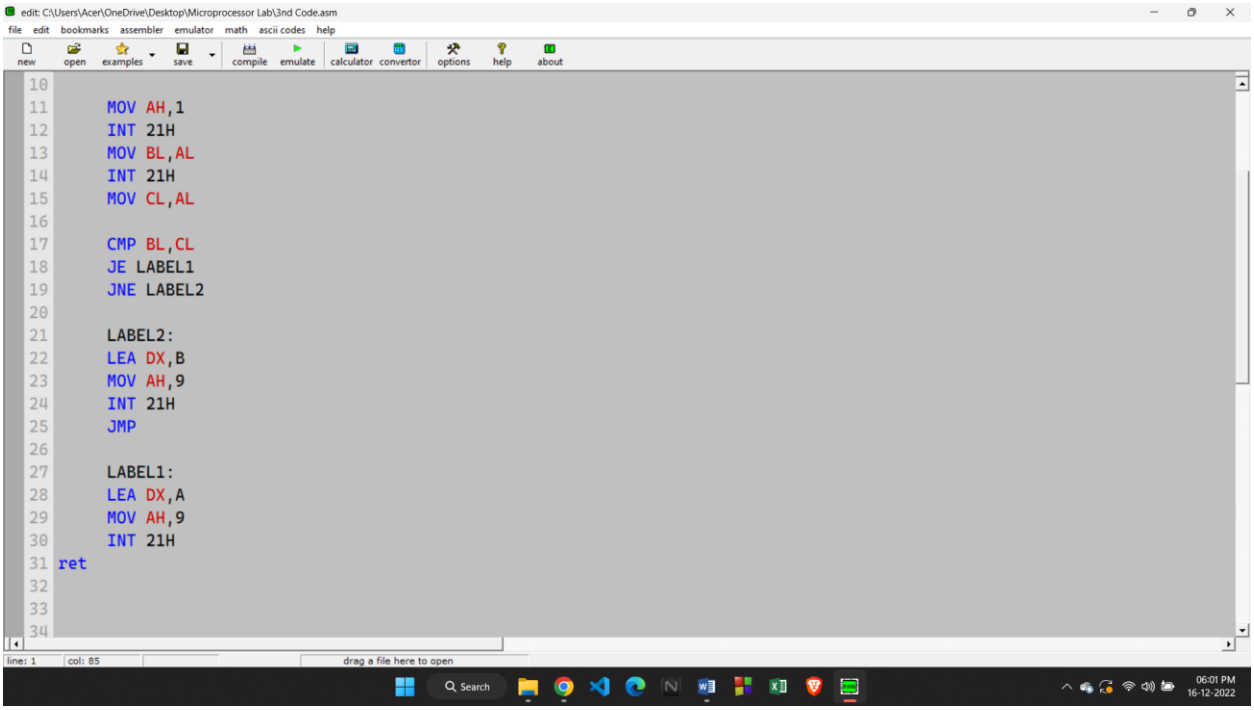
16-12-2022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file edit bookmarks assembler emulator math ascii codes help
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MOV AH,1
INT 21H
MOV BL,AL
INT 21H
MOV CL,AL
CMP BL,CL
JE LABEL1
JNE LABEL2
LABEL2:
LEA DX,B
MOV AH,9
INT 21H
JMP
LABEL1:
LEA DX,A
MOV AH,9
INT 21H
ret
line: 1 col: 85
drag a file here to open
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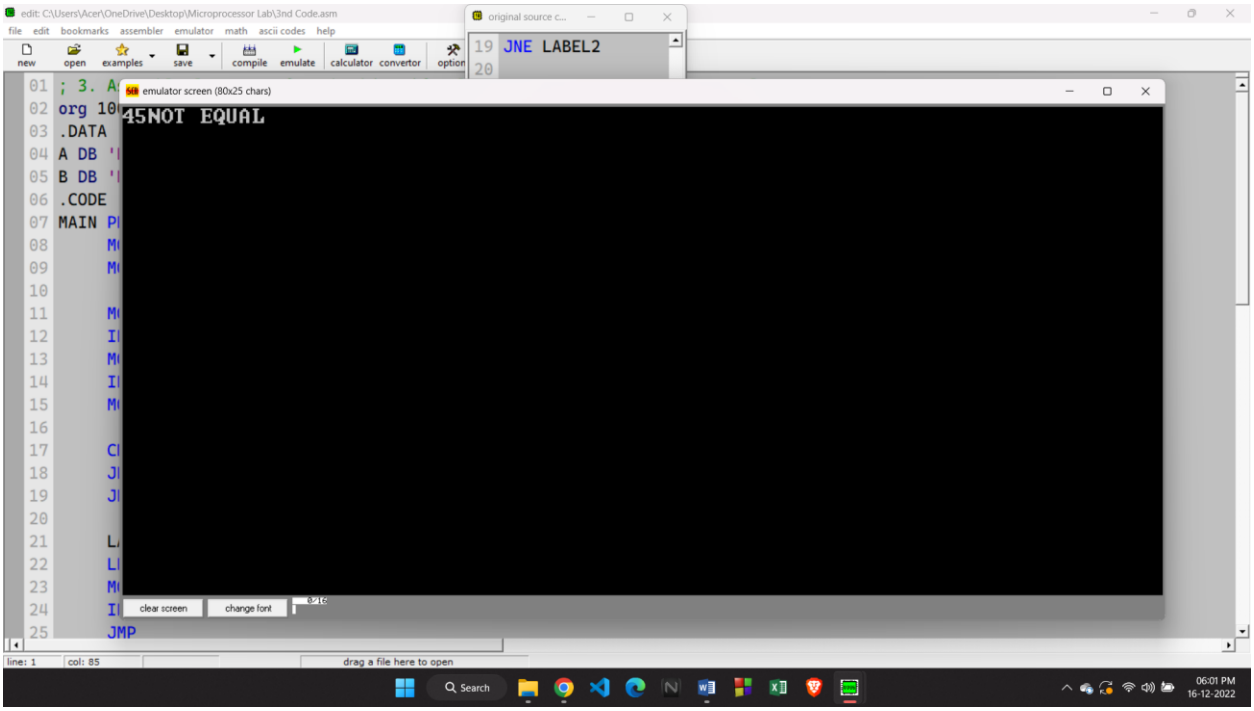
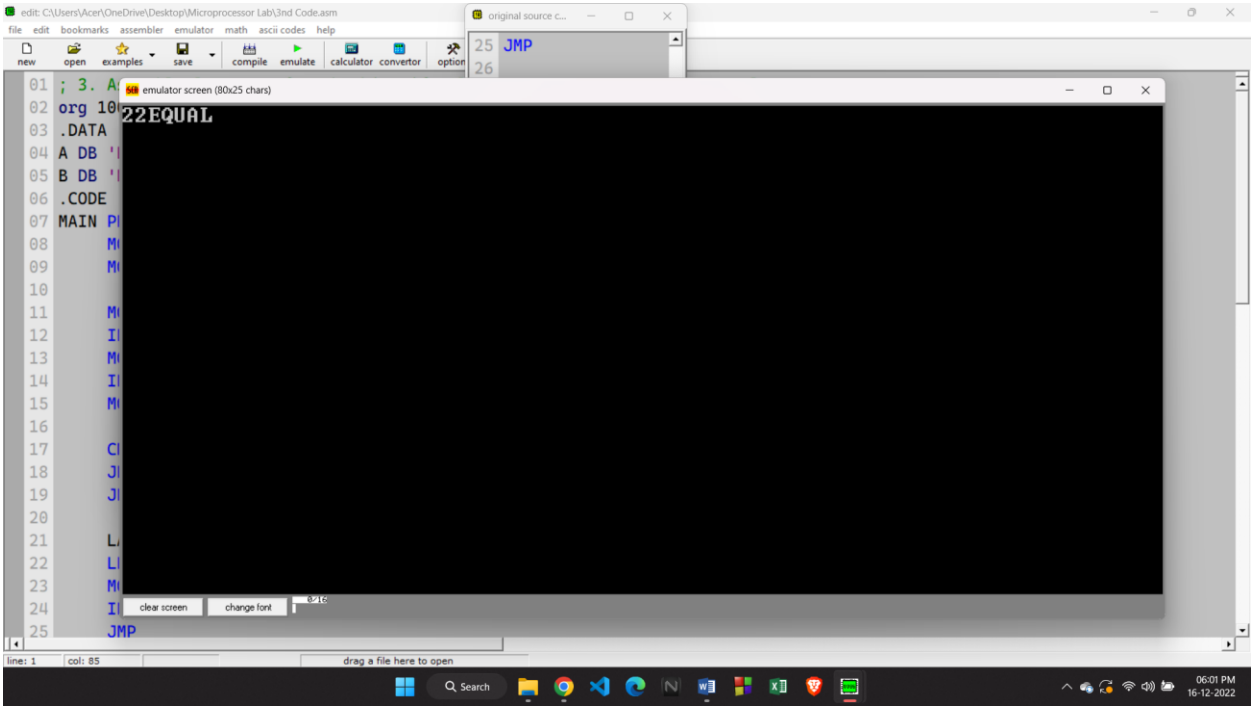
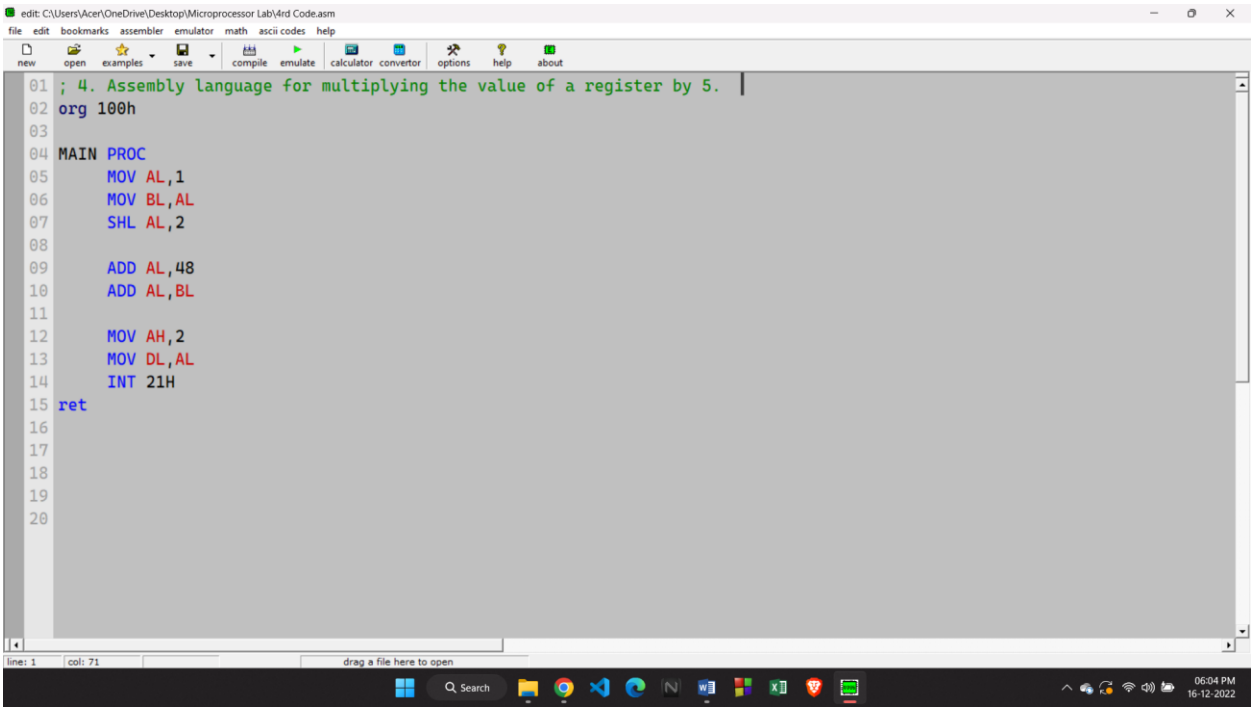
**OUTPUT:**




## 4. Assembly language for multiplying the value of a register by 5.

**CODE:**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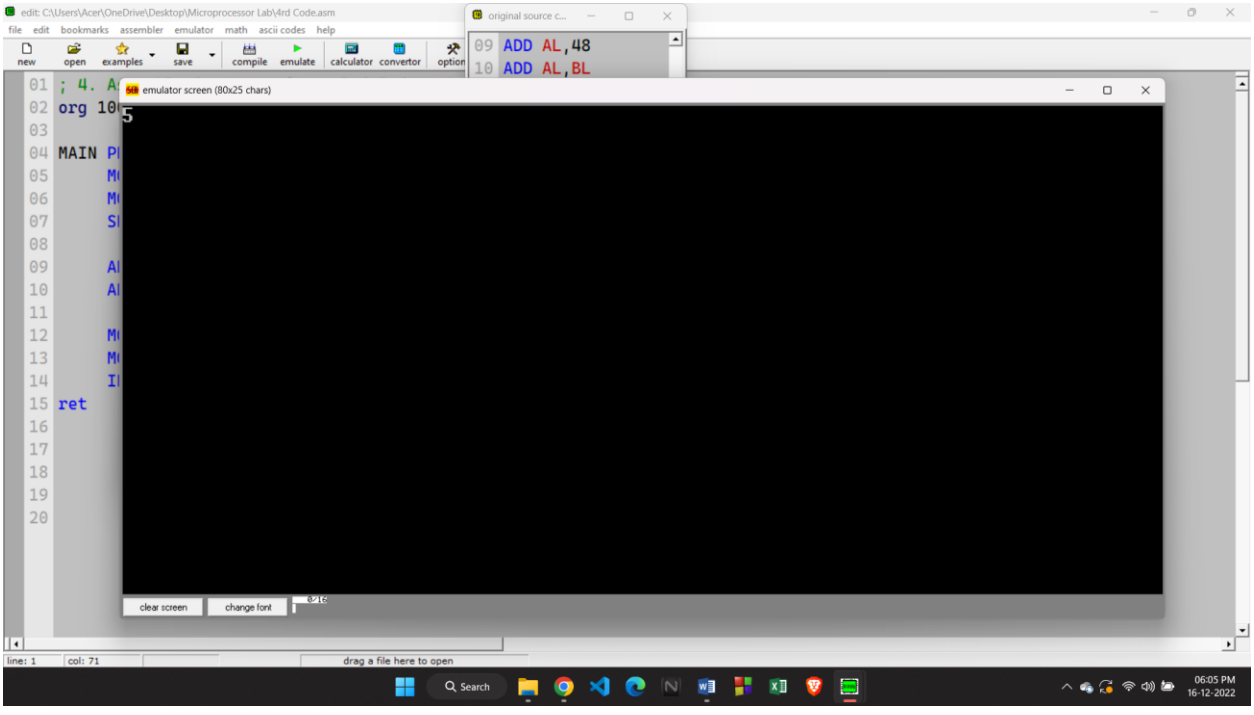
; 4. Assembly language for multiplying the value of a register by 5.
org 100h
MAIN PROC
MOV AL,1
MOV BL,AL
SHL AL,2
ADD AL,48
ADD AL,BL
MOV AH,2
MOV DL,AL
INT 21H
ret
line: 1 col: 71
drag a file here to open
Search
06:04 PM
16-12-2022

**OUTPUT:**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original source c...
09 ADD AL,48
10 ADD AL,BL
emulator screen (80x25 chars)
5
clear screen
change font
line: 1 col: 71
drag a file here to open
Search
06:05 PM
16-12-2022