Name:	BARI ANKIT VINOD
Roll No:	65
Class/Sem:	SE/IV
Experiment No.:	5
Title:	Program to display string in Lowercase.
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Marks:	
Sign of Faculty:	

Aim: Program to display string in Lowercase.

Theory:

The program will take Uppercase string as input and convert it to lowercase string. Int 21h is a DOS interrupt. To use the DOS interrupt 21h load with the desired sub-function. Load other required parameters in other registers and make a call to INT 21h.

INT 21h/AH = 9

output of string at DS: ・String mest be terminated by '"$"

example :

```
org 100h

mov dx, offset msg

mov ah, 9

int 21h

ret

msg db "hello world $"
```

INT 21h/AH = 0AH – input of string to DS:DX, first byte is buffer size, second byte is number of chars actually read this function does not add '$' in the end of string to print using INT 21h/AH = 9 you must set dollar character at the end of it and start printing from address DS : DX + 2. The function does not allow to enter more characters than the specified buffer size.

Algorithm:

1. Start.
2. Initialize the Data Segment.
3. Display message -1.
4. Input the string.
5. Display message-2.

6 Take the character count in CX.

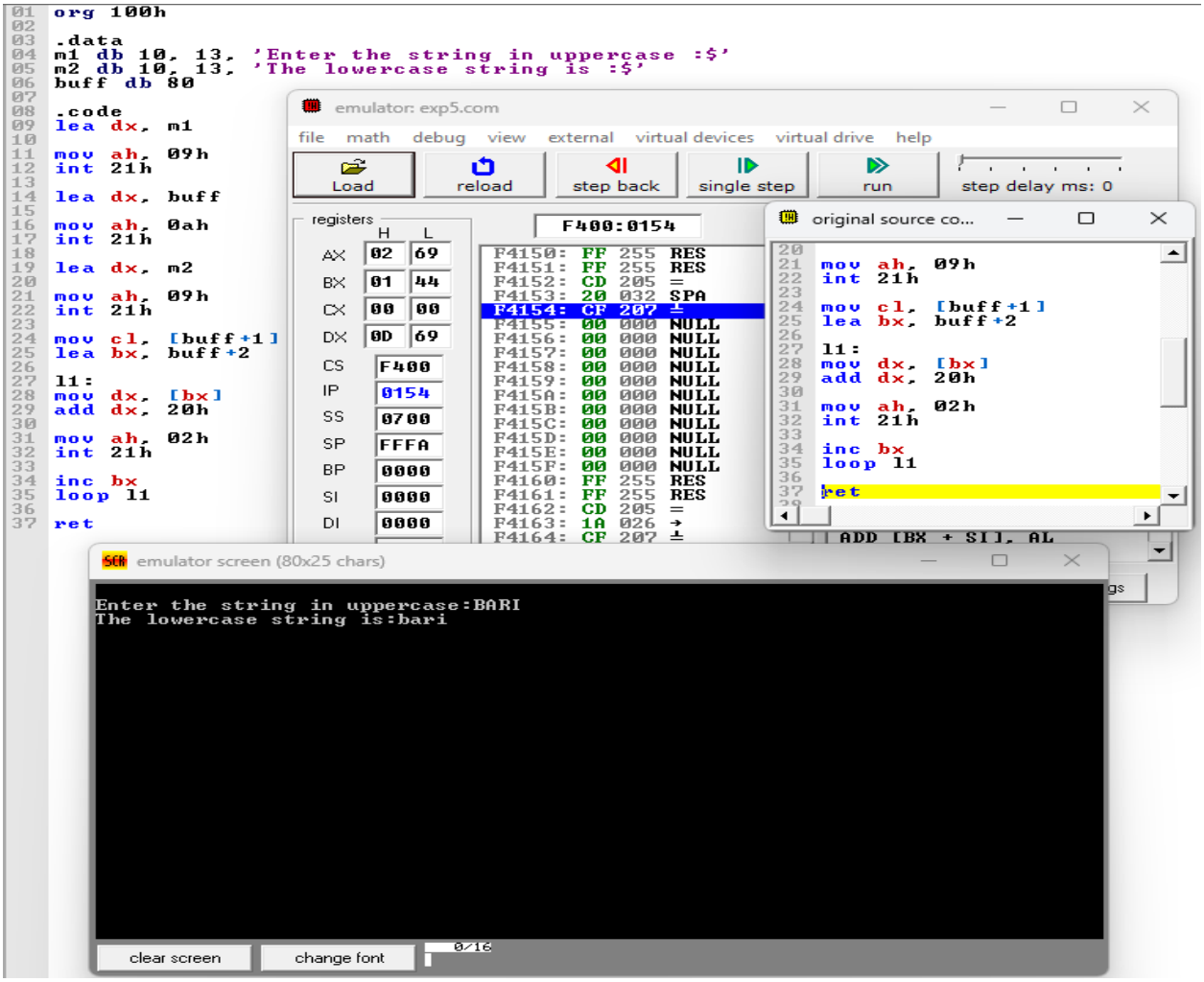
7. Point to the first character.
8. Convert it to Lowercase.
9. Display the character.
10. Decrement the character coun.
11. If not Zero, repeat from step 6.
12. To terminate the program, using the DOS interrupt:
    1) Initialize AH with 4CH
    2) Call interrupt INT 21H.
13. Stop.

Code :

```
org 100h

.data
m1 db 10, 13, 'Enter the string in uppercase :$'
m2 db 10, 13, 'The lowercase string is :$'
buff db 80

.code
lea dx, m1

mov ah, 09h
```

```
int 21h

lea dx, buff

mov ah, 0ah
int 21h

lea dx, m2

mov ah, 09h
int 21h

mov cl, [buff+1]
lea bx, buff+2

l1:
mov dx, [bx]
add dx, 20h

mov ah, 02h
int 21h

inc bx
loop l1

ret
```

Output :



Conclusion :

In conclusion, the program designed to display strings in lowercase effectively demonstrates the fundamental concepts of string manipulation and programming logic. By transforming inputted strings into lowercase, the program enhances readability and standardizes data for various applications. Through this project, we've gained valuable insights into the implementation of string functions and the importance of user-friendly interfaces. As we continue to refine our coding skills, this program serves as a foundational step towards tackling more complex challenges in software development.