



Vidyavardhini's College of Engineering & Technology

Department of Artificial Intelligence and Data Science (AI&DS)

Name:	BARI ANKIT VINOD
Roll No:	65
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Title:	Program for printing the string using procedure and macro.
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Aim: Program for printing the string using procedure and macro.

Theory:

Procedures:-

- Procedures are used for large group of instructions to be repeated.
- Object code generated only once. Length of the object file is less the memory
- CALL and RET instructions are used to call procedure and return from procedure.
- More time required for its execution.
- Procedure Can be defined as:

```
Procedure_name PROC  
.....  
.....  
Procedure_name ENDP
```

Example:

```
Addition PROC near  
.....  
.....  
Addition ENDP
```

Macro:-

- Macro is used for small group of instructions to be repeated.
- Object code is generated every time the macro is called.
- Object file becomes very lengthy.



- Macro can be called just by writing.
- Directives MACRO and ENDM are used for defining macro.
- Less time required for its execution.
- Macro can be defined as:

Macro_name MACRO [Argument, , Argument N]

.....

.....

ENDM

Example:-

Display MACRO msg

.....

.....

ENDM

Code :

org 100h

.data

msg1 db 10, 13, 'Procedures\$'

.code

lea dx, msg1

call print

mov ah, 4ch

int 21h

print proc

mov ah, 09h

int 21h

ret

print endp

ret

org 100h

print macro p1

 lea dx, p1

 mov ah, 09h

 int 21h

endm

.data

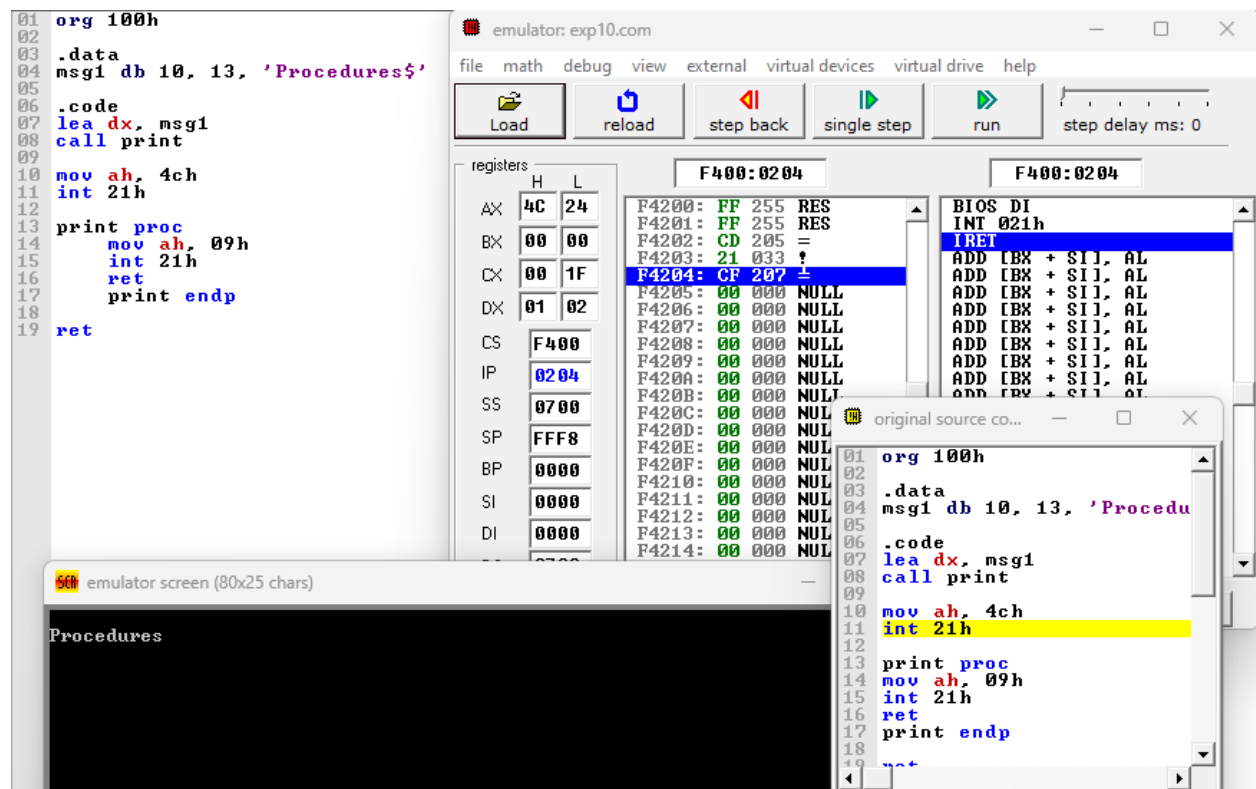
m1 db 10, 13, 'Macos\$'

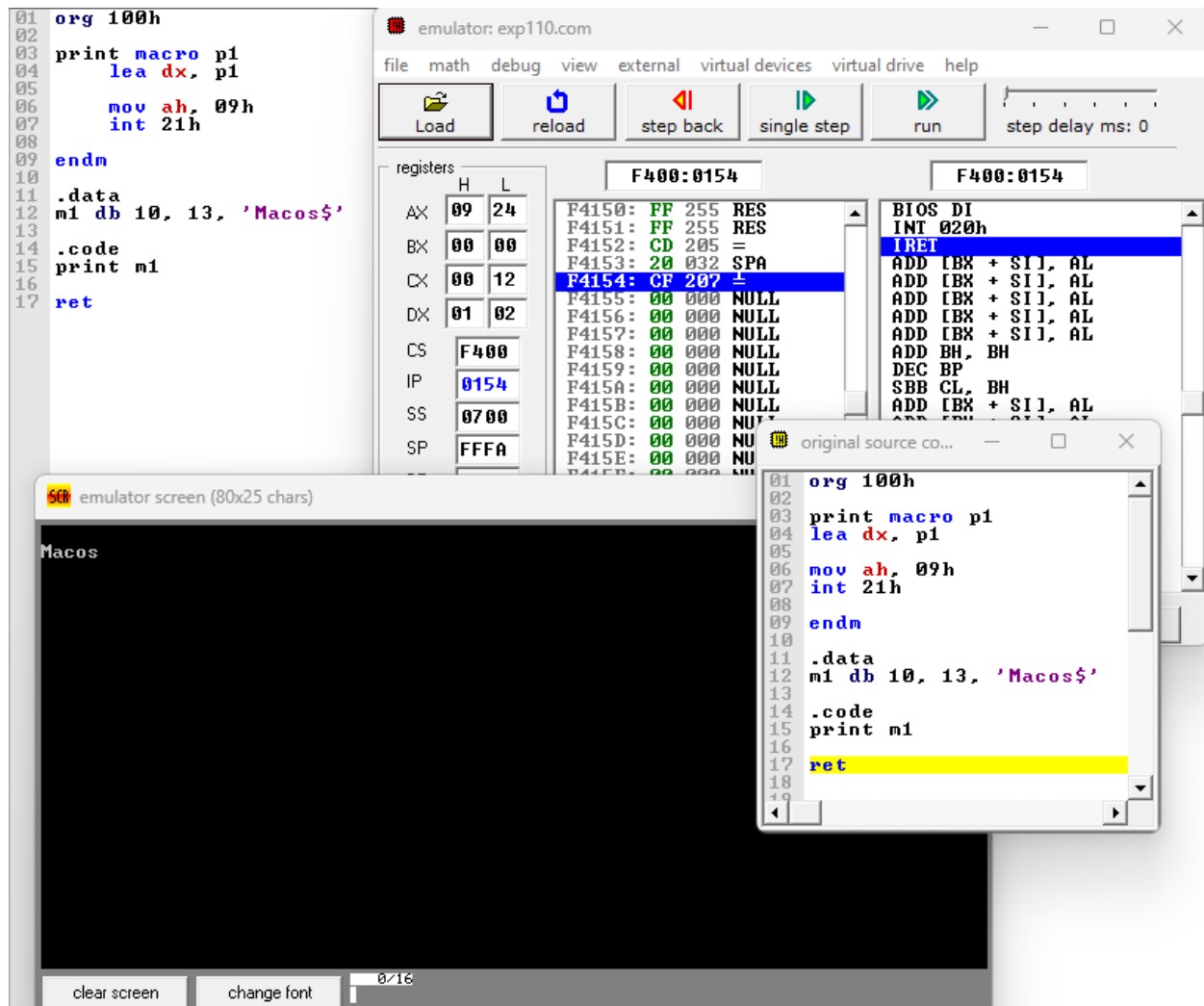
.code

print m1

ret

Output :





Conclusion :

In conclusion, the utilization of both procedures and macros in the program for printing strings enhances code readability, reusability, and efficiency. Procedures allow for the encapsulation of repetitive tasks, promoting modular design and easing maintenance. On the other hand, macros enable the generation of code snippets at compile time, reducing runtime overhead and potentially optimizing performance. By combining these two programming constructs, developers can create robust and flexible solutions for string manipulation tasks, thereby improving the overall quality and maintainability of the codebase.