

```
.MODEL SMALL

.STACK 100H

.DATA ; The string to be printed
STRING DB 'Madam', '$'
STRING1 DB 'String is palindrome', '$'
STRING2 DB 'String is not palindrome', '$'

.CODE

MAIN PROC FAR

MOV AX, @DATA
MOV DS, AX

; check if the string is;
;palindrome or not
CALL Palindrome

;interrupt to exit
MOV AH, 4CH
INT 21H
MAIN ENDP

Palindrome PROC

; load the starting address
; of the string
MOV SI, OFFSET STRING

; traverse to the end of;
;the string
LOOP1 :
MOV AX, [SI]
CMP AL, '$'
JE LABEL1
INC SI
JMP LOOP1
```

```
;load the starting address;
;of the string
LABEL1 :
MOV DI, OFFSET STRING
DEC SI
; check if the string is palindrome;
;or not
LOOP2 :
CMP SI, DI
JL OUTPUT1
MOV AX, [SI]
MOV BX, [DI]
CMP AL, BL
JNE OUTPUT2
DEC SI
INC DI
JMP LOOP2
OUTPUT1:
;load address of the string
LEA DX,STRING1
; output the string;
;loaded in dx
MOV AH, 09H
INT 21H
RET
OUTPUT2:
;load address of the string
LEA DX,STRING2
; output the string
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; loaded in dx

MOV AH,09H

INT 21H

RET

Palindrome ENDP

END MAIN