Code: String Niyati Savant

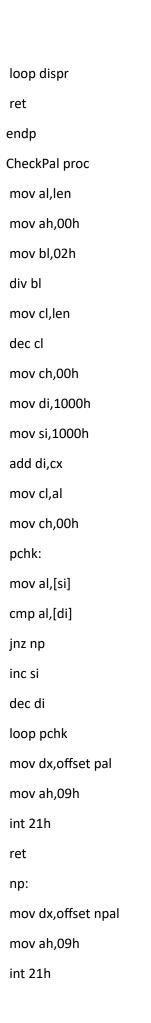
```
Data Segment
title db 0dh,0ah,"NIYATI EXP 5 $"
chc db 0dh,0ah,"Choose Operation: $"
chc1 db Odh,Oah," 1. Accept String $"
chc2 db 0dh,0ah," 2. Display String $"
chc3 db 0dh,0ah," 3. Display Length $"
chc4 db 0dh,0ah," 4. Display Reverse $"
chc5 db 0dh,0ah," 5. Check Palindrome $"
chc6 db 0dh,0ah," 6. Exit $"
len db?
msg db 0dh,0ah,"Please enter the String: $"
msg1 db 0dh,0ah,"The length of the entered String is: $"
msg2 db 0dh,0ah,"The entered String is: $"
msg3 db 0dh,0ah,"The reverse of the entered String is: $"
pal db 0dh,0ah,"The String is a Palindrome. $"
npal db Odh,Oah,"The String is not a Palindrome. $"
newl db 0dh,0ah," $"
Data ends
Code Segment
assume DS:Data,CS:Code
Start:
mov ax,Data
mov DS,ax
mov dx,offset title
mov ah,09h
int 21h
call AcceptString
I: mov dx,offset chc
mov ah,09h
int 21h
```

mov dx,offset chc1 mov ah,09h int 21h mov dx,offset chc2 mov ah,09h int 21h mov dx,offset chc3 mov ah,09h int 21h mov dx,offset chc4 mov ah,09h int 21h mov dx,offset chc5 mov ah,09h int 21h mov dx,offset chc6 mov ah,09h int 21h mov dx,offset newl mov ah,09h int 21h mov ah,01h int 21h sub al,30h cmp al,06h jz ex cmp al,05h jne n1 call CheckPal n1: cmp al,04h jne n2

call DisplayRev n2: cmp al,03h jne n3 call DisplayLength n3: cmp al,02h jne n4 call DisplayString n4: cmp al,01h jne l call AcceptString jmp l ex: mov ah,4ch int 21h AcceptString proc mov si,1000h mov di,1000h mov cx,0000h mov dx,offset msg mov ah,09h int 21h back: mov ah,01h int 21h cmp al,0dh je comp inc cx mov [si],al mov [di],al inc si inc di jmp back

comp: mov len,cl ret endp DisplayString proc mov dx,offset msg2 mov ah,09h int 21h mov cl,len mov ch,00h mov si,1000h disp: mov dl,[si] mov ah,02h int 21h inc si loop disp ret endp DisplayLength proc mov dx,offset msg1 mov ah,09h int 21h mov bl,len call DispNum ret endp DispNum proc mov al,bl and al,0f0h ror al,4 mov dl,al

call HexDisp mov ah,02h int 21h mov al,bl and al,0fh mov dl,al call HexDisp mov ah,02h int 21h endp HexDisp proc cmp dl,0ah jc nothex add dl,07h nothex: add dl,30h ret endp DisplayRev proc mov dx,offset msg3 mov ah,09h int 21h mov cl,len mov ch,00h mov si,1000h add si,cx dec si dispr: mov dl,[si] mov ah,02h int 21h dec si



endp

Code ends

end Start

OUTPUT:

Assembling file: string.asm

Error messages: None Warning messages: None Passes: Remaining memory: 472k

C:\TASM>tlink string.obj

Turbo Link Version 2.0 Copyright (c) 1987, 1988 Borland International

Warning: no stack

C:\TASM>string.exe

NIYATI EXP 5

Please enter the String: Microprocessor

Choose Operation:

- 1. Accept String
- Display String
 Display Length
- 4. Display Reverse
- 5. Check Palindrome
- 6. Exit

- 1. Accept String
- 2. Display String
- 3. Display Length
- 4. Display Reverse
- 5. Check Palindrome
- 6. Exit

2

The entered String is: Microprocessor

Choose Operation:

- 1. Accept String
- 2. Display String
- 3. Display Length
- 4. Display Reverse
- 5. Check Palindrome
- 6. Exit

Choose Operation:

- 1. Accept String
- 2. Display String
- 3. Display Length
- 4. Display Reverse
- 5. Check Palindrome
- 6. Exit

```
1. Accept String
 2. Display String
 3. Display Length
 4. Display Reverse
 5. Check Palindrome
6. Exit
The length of the entered String is: OE
Choose Operation:
 1. Accept String
 2. Display String
3. Display Length
 4. Display Reverse
5. Check Palindrome
The reverse of the entered String is: rossecorporciM
Choose Operation:
 1. Accept String

    Display String
    Display Length

 4. Display Reverse
5. Check Palindrome
6. Exit
 2. Display String
 3. Display Length
 4. Display Reverse
 5. Check Palindrome
 6. Exit
The String is not a Palindrome.
Choose Operation:
 1. Accept String
 2. Display String
 3. Display Length
 4. Display Reverse
 5. Check Palindrome
 6. Exit
Choose Operation:
 1. Accept String
 2. Display String
3. Display Length
 4. Display Reverse
 5. Check Palindrome
6. Exit
C:\TASM>_
```