ATHARVA YADAV

ROLL NO : 127

BATCH : S23

MPL ASSIGNMENT NO.10

AIM:TO CHECK WHETHER THE GIVEN STRING IS PALINDROME OR NOT

```
DATA_SEG SEGMENT

 SARY DB 'ABCXYDYXCBA'                        ;STRING ON WHICH THE OPERATION US TO BE PERFORMED
 LEN DW 11                                    ;INITIALIZE THE COUNTER WITH LENGTH OF THE STRING
 PAL_CHK DB ?              ;PALINDROME CHECK

DATA_SEG ENDS


CODE_SEG SEGMENT
      ASSUME CS:CODE_SEG , DS:DATA_SEG

 START:
      MOV AX , DATA_SEG   ;INITIALIZE THE DATA SEG
      MOV DS,AX


      MOV SI , OFFSET SARY
       MOV DI , SI                 ;MOVE SOURCE POINTER TO DESTINATION
      MOV BX , LEN        ;MOVE THE LENGTH TO BX
      DEC BX                    ;DECREMENT BX
       ADD DI , BX               ;CHANGE DI
 AGAIN :
      MOV AL , [SI]
      CMP AL , [DI]     ;COMPARE START AND END POINTER
      JNE NOPAL       ;JUMP IF NOT EQUAL
       INC SI                    ;INCREMENT SI
       DEC DI                    ;DECREMENT DI
        CMP SI , DI              ;COMPARE SI AND DI
      JC AGAIN        ;JUMP TO LABEL AGAIN
      MOV PAL_CHK , 0FFH ;IF PALINDROME STORE FFH
      JMP SKIP        ;JUMP TO LABEL SKIP

 NOPAL :
      MOV PAL_CHK , 00H

 SKIP :
      MOV AH ,4CH  ;EXIT TO DOS
      INT 21H
CODE_SEG ENDS


END START
```
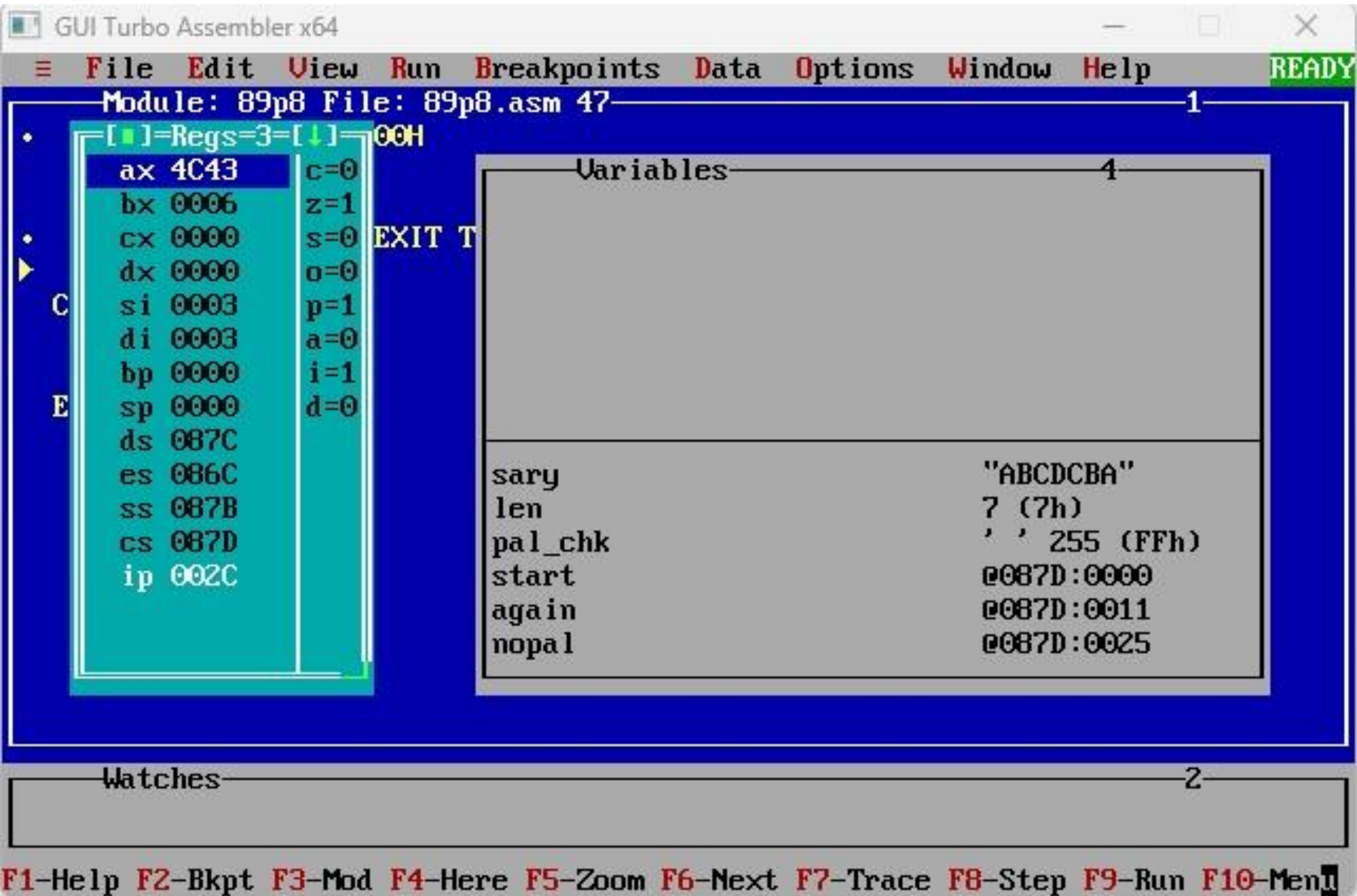
≡ **File** **Edit** **View** **Run** **Breakpoints** **Data** **Options** **Window** **Help** **READY**

─Module: 89p8 File: 89p8.asm 47──────────────────1─

─[■]═Regs═3═[↓]─00H

ax 4C43	c=0		
bx 0006	z=1		
cx 0000	s=0	EXIT T	
dx 0000	o=0		
si 0003	p=1		
di 0003	a=0		
bp 0000	i=1		
sp 0000	d=0		
ds 087C			
es 086C			
ss 087B			
cs 087D			
ip 002C			

───Variables────────────4─

sary	"ABCDCBA"
len	7 (7h)
pal_chk	' ' 255 (FFh)
start	@087D:0000
again	@087D:0011
nopal	@087D:0025

─Watches───────────────2─

F1-Help **F2**-Bkpt **F3**-Mod **F4**-Here **F5**-Zoom **F6**-Next **F7**-Trace **F8**-Step **F9**-Run **F10**-Menu

≡ File Edit View Run Breakpoints Data Options Window Help READY

Module: 89p8 File: 89p8.asm 46 ─────────────────────1─
    MOV PAL_CHK , 00H

┌──────Regs─4──────┐   ┌[■]═Variables════════════════3=[↑][↓]═┐
SKI │ ax 0859 │ c=0 │   │_   │
  ► │ bx 000A │ z=1 │ T T   │   │
  • │ cx 0000 │ s=0 │   │   │
CODE│ dx 0000 │ o=0 │   │   │
    │ si 0005 │ p=1 │   │   │
    │ di 0005 │ a=0 │   │   │
END │ bp 0000 │ i=1 │   ├───────────────────────────────────────┤
    │ sp 0000 │ d=0 │   │ sary   "ABCXYDYXCBA"   │
    │ ds 087C │   │   │ len   11 (Bh)   │
    │ es 086C │   │   │ pal_chk   ' ' 255 (FFh)   │
    │ ss 087B │   │   │ start   @087D:0000   │
    │ cs 087D │   │   │ again   @087D:0011   │
    │ ip 002A │   │   │ nopal   @087D:0025   │
└──────────────────┘   └───────────────────────────────────────┘

┌─Watches──2─┐
│   │
└───┘

F1-Help F2-Bkpt F3-Mod F4-Here F5-Zoom F6-Next F7-Trace F8-Step F9-Run F10-Menu