Experiment No 5

Student should be able to apply string operations (i) Accept, (ii) Display, (iii) Concatenate and (iv) Compare in ALP.

```
.model small

.stack

.data

m1 db 10,13,"Enter 1st string:$"

m2 db 10,13,"Length of 1st string:$"

m3 db 10,13,"Display 1st string:$"

m4 db 10,13,"Enter 2nd string:$"

m5 db 10,13,"Length of 2nd string:$"

m6 db 10,13,"Display 2nd string:$"

m7 db 10,13,"Comparison : $ "

m8 db 10,13,"Strings are Equal$"

m9 db 10,13," Strings are not Equal$"

m10 db 10,13,"Concatenatd String is  : $"


str1 db 80,?,80 DUP(?)

str2 db 80,?,80 DUP(?)

str3 db 80,?,80 DUP(?)


.code

Disp macro xx

   mov ah,09h

   lea dx,xx

   int 21h
```

```
endm

.startup
Disp m1     ;Enter 1st string
mov ah,0Ah  ;Read a string from the keyboard into buffer addressed by DX
lea dx,str1
int 21h

Disp m2       ;Length of 1st string
lea si,str1+1
mov dl,[si]
mov cl,dl
add dl,30h
mov ah,02h
int 21h

Disp m3      ;Display 1st string
lea si,str1+2

Back:
mov dl,[si]
mov ah,02h
int 21h

inc si
dec cl
jnz Back
```

```
Disp m4      ;Enter 2nd string
mov ah,0Ah
lea dx,str2
int 21h

Disp m5    ;Length of 2nd string
lea si,str2+1
mov dl,[si]
mov cl,dl
add dl,30h
mov ah,02h
int 21h

Disp m6    ;Display 2nd string
lea si,str2+2
Back1:
mov dl,[si]
mov ah,02h
int 21h

inc si
dec cl
jnz Back1

Disp m7      ; Comparison
lea si,str1+1
```

```
mov cl,[si]
lea di,str2+1
mov ch,[di]
cmp cl,ch
jnz AA
lea si,str1+2
lea di,str2+2

Back2:
mov dl,[si]
mov dh,[di]
cmp dl,dh
jnz AA
inc si
inc di
dec cl
jnz Back2

Disp m8    ;Strings are Equal
jmp con

AA:
Disp m9   ; Strings are not Equal

con:
Disp m10       ;Concatenatd String is
```

```
lea si,str1+1
mov cl,[si]
mov bl,cl

lea di,str2+1
mov ch,[di]
mov bh,ch
add bl,bh

lea si,str1+2
lea di,str3+2

Back3:
mov dl,[si]
mov [di],dl
inc si
inc di
dec cl
jnz back3
lea si,str2+2

Back4:
mov dl,[si]
mov [di],dl
inc si
inc di
dec ch
```

```
jnz Back4
lea di,str3+2

Back5:
mov dl,[di]
mov ah,02h
int 21h
inc di
dec bl
jnz Back5

Exit:
.exit
end
```