

Experiment - 12

Write & execute an assembly language program to perform string operations

- Find length of string
- To arrange string in reverse order
- To compare two strings

Answer the following practical related questions

A) Match the following

a) `MOVB/SW` → 2.) moves a string of bytes stored in source of destination

b) `CMPs` → 3.) compares two strings of bytes ~~stores in source of destination~~ or words whose length is stored in CX

c) `SCAS` → 4.) Scans a string of bytes or words

d) `LODS` → 1.) Loads AX/AX register by content

B) Explain use of REPE /REP /REPNE

→ REPE :- Used to repeat instruction until
 $CX = 0$ or $ZF = 1$

REPNE :- Used to repeat the instruction
until $CX = 0$ or $ZF = 0$

Q] Write ALP to concatenate two strings

Data segment

str1 db "MILIT"

str2 db "WPU"

result db 20h dup("\$")

data ends

code segment

assume cs:code, ds:data

start: mov ax, data

mov ds, ax

lea si, str1

lea di, result

up: mov al, [si]

cmp al, "\$"

jnc down

mov [di], al

inc si

inc di

jmp up

down: lea si, str2

jmp next

next: mov al, [si]

cmp al, "\$"

jnc exit



mov [di] al

inc si

inc di

jmp next

exit: mov dx, offset result

mov ah, 09h

int 21h

code ends

end starts

Conclusion :- From this experiment we learned to do assembly language programs with strings.