**FR. Conceicao Rodrigues College of Engineering Department of Computer Engineering**

# 8. PASSWORD VERIFICATION.

## 1. Course, Subject & Experiment Details

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|---|---|---|---|
| Academic Year | 2023-24 | Estimated Time | Experiment No. 8– 02 Hours |
| Course & Semester | S.E. (Comps) – Sem. IV | Subject Name | Microprocessor |
| Chapter No. | 2 | Chapter Title | Instruction Set and Programming |
| Experiment Type | Software | Subject Code | CSC405 |

**Rubrics**

| Timeline (2) | Practical Skill & Applied Knowledge (2) | Output (3) | Postlab (3) | Total (10) | Sign |
|---|---|---|---|---|---|
| | | | | | |

## 2. Aim & Objective of Experiment

**PASSWORD VERIFICATION**

**Objective :** The objective is to make use of string instruction and MACRO, to check whether the entered password by the user is correct or not.

## 3. Software Required

TASM Assembler

## 4 . Brief Theoretical Description

**Pre-Requisites:**
1. Knowledge of TASM directives.
2. Knowledge of DOS interrupts.
3. Knowledge of string instruction and MACRO

## 5. Algorithm:

1. Store Initial password into Array.
2. Write Macro for printing output message.
3. Write Macro to display ‘*’.
4. Initialize the data segment.
5. Set the counter value=no. of character present in password.
6. Load Effective address of stored password in BX.
7. Take input from the keyboard.
8. Compare input with the password string.
9. If zero=0, both value are equal. Go to step 10.

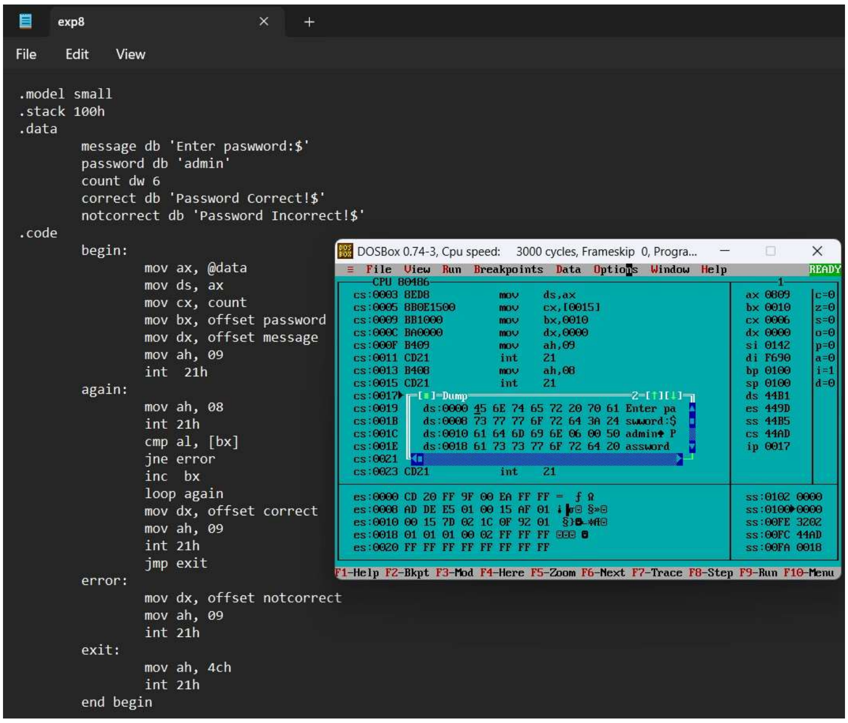
.If zero is not equal to 0.Go to step 15.

10. display ’*’ Macro.
11. Increment BX.
12. Decrement counter by 1.
13. Check if counter=0.If not, Repeat step 7 to 12.
14. Display Macro message for correct password, Go to step 16.
15. Display ‘*’ macro and Macro message for wrong password.
16. End

## 6. Conclusion:

Hence, using string instruction and MACRO, we have checked whether the entered password by the user is correct or not.

CODE & OUTPUT:


exp8
File
Edit
View
DOSBox 0.74-3, Cpu speed: 3000 cycles, Frameskip 0, Progra...
≡ File View Run Breakpoints Data Options Window Help
READY
F1-Help F2-Bkpt F3-Mod F4-Here F5-Zoom F6-Next F7-Trace F8-Step F9-Run F10-Menu

```
.model small
.stack 100h
.data
        message db 'Enter paswword:$'
        password db 'admin'
        count dw 6
        correct db 'Password Correct!$'
        notcorrect db 'Password Incorrect!$'
.code
        begin:
                mov ax, @data
                mov ds, ax
                mov cx, count
                mov bx, offset password
                mov dx, offset message
                mov ah, 09
                int  21h
        again:
                mov ah, 08
                int 21h
                cmp al, [bx]
                jne error
                inc  bx
                loop again
                mov dx, offset correct
                mov ah, 09
                int 21h
                jmp exit
        error:
                mov dx, offset notcorrect
                mov ah, 09
                int 21h
        exit:
                mov ah, 4ch
                int 21h
        end begin
```

```
 CPU 80486                                                    1
  cs:0003 BED8            mov    ds,ax               ax 0809   c=0
  cs:0005 8B0E1500        mov    cx,[0015]           bx 0010   z=0
  cs:0009 BB1000          mov    bx,0010             cx 0006   s=0
  cs:000C BA0000          mov    dx,0000             dx 0000   o=0
  cs:000F B409            mov    ah,09               si 0142   p=0
  cs:0011 CD21            int    21                  di F690   a=0
  cs:0013 B408            mov    ah,08               bp 0100   i=1
  cs:0015 CD21            int    21                  sp 0100   d=0
  cs:0017▶ [■]=Dump=====================2=[↑][↓]     ds 44B1
  cs:0019   ds:0000 45 6E 74 65 72 20 70 61 Enter pa   es 449D
  cs:001B   ds:0008 73 77 77 6F 72 64 3A 24 swword:$   ss 44B5
  cs:001C   ds:0010 61 64 6D 69 6E 06 00 50 admin♠ P   cs 44AD
  cs:001E   ds:0018 61 73 73 77 6F 72 64 20 assword    ip 0017
  cs:0021
  cs:0023 CD21            int    21

  es:0000 CD 20 FF 9F 00 EA FF FF =  ƒ Ω              ss:0102 0000
  es:0008 AD DE E5 01 00 15 AF 01 ¡ σ☺ §»☺            ss:0100▶0000
  es:0010 00 15 7D 02 1C 0F 92 01  §}☻∟☼Æ☺            ss:00FE 3202
  es:0018 01 01 01 00 02 FF FF FF ☺☺☺ ☻               ss:00FC 44AD
  es:0020 FF FF FF FF FF FF FF FF                     ss:00FA 0018
```

**Prepared by : Prof. Heenakausar Pendhari**