

FR. Conceicao Rodrigues College of Engineering
Department of Computer Engineering

8. PASSWORD VERIFICATION.

1. Course, Subject & Experiment Details

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

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pass.asm
1  .8086
2  .model small
3
4  .data
5      password db 'pass123$'
6      user      db 8 dup ('$')
7      msg_right db 'Correct password entered.$'
8      msg_wrong db 'Wrong password entered.$'
9      input_buffer db 8 dup ('$')
10
11 .code
12 print_star MACRO
13     MOV DL, '*'
14     MOV AH, 02H
15     INT 21H
16 ENDM
17
18 print_msg MACRO msg
19     MOV AH, 09H
20     LEA DX, msg
21     INT 21H
22 ENDM
23
24 start:
25     MOV AX, @data
26     MOV DS, AX
27     MOV ES, AX
28
29     MOV CX, 8H
30     LEA BX, password
31     LEA DI, user
32
33 input_loop:
34     MOV AH, 01H
35     INT 21H
36     MOV [DI], AL
37     INC DI
38     MOV DL, AL
39     MOV AH, 02H
40     INT 21H
41     DEC CX
42     JNZ input_loop
43
44 check_password:
45     LEA SI, user
46     LEA DI, password
47     MOV CX, 8H
48     cld
49     repe cmpsb
50     jz correct_password
51     jmp wrong_password
52
53 correct_password:
54     print_star
55     print_msg msg_right
56     jmp end_program
57
58 wrong_password:
59     print_star
60     print_msg msg_wrong
61     jmp end_program
62
63 end_program:
64     int 20H
65
66 end start

```

pass123\$*Correct password entered.