Experiment no: 02

Experiment Title: Write an Assembly code to show Capital Letters and Small Letters

Objective: The main purpose of this lab is to how show Capital Letters and Small Letters in Assembly Code.

Theory: First, we take 26-character values to print these numbers, then we store them in the register. Then we take the ASCII value for the first letter. Then we use the loop, which after printing one letter at a time increases it and prints the next number. We will continue the loop until we get all the values of 26 characters.

Code:

. MODEL SMALL

. STACK 100H

.DATA

MSG DB "Printing Capital Alphabets A to Z: $"

SMS DB "Printing Capital alphabets a to z: $"

. CODE

MAIN PROC

    MOV AX, @DATA

    MOV DS, AX

    MOV BX, @DATA

    MOV DS, BX

    MOV AH, 9

    LEA DX, MSG

    INT 21H

```asm
    MOV CX, 26
    MOV BL, 65
    MOV AH, 2
CAPITAL:
    MOV DL, BL
    INT 21H
    INC BL
LOOP CAPITAL

  ; NEW LINE PRINT
    MOV AH, 2
    MOV DL, 0DH
    INT 21H
    MOV DL, 0AH
    INT 21H

    MOV AX, @DATA
    MOV DS, AX
    MOV BX, @DATA
    MOV DS, BX

    MOV AH, 9
    LEA DX, SMS
    INT 21H
    MOV CX, 26
    MOV BL, 97
    MOV AH, 2
SMALL:
```

MOV DL, BL

INT 21H

INC BL

LOOP SMALL

MAIN ENDP

END MAIN

Input & Output:

```
Printing Capital Alphabets A to Z: ABCDEFGHIJKLMNOPQRSTUVWXYZ
Printing Capital alphabets a to z: abcdefghijklmnopqrstuvwxyz
```