



বরেন্দ্র বিশ্ববিদ্যালয়
VARENDRA UNIVERSITY



Department of Computer Science and Engineering

21st Batch

Lab Report 1

Course title : Microprocessor and Assembly Language
Course Code : CSE-334

Submitted By	Submitted To
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Problem Statement: Print the coder's name by Assembly code using emu8086 character by character.

Theory: To Print the coder's name by Assembly code using emu8086 character by character we will use the default assembly format to print a single character. To do so we will use 2 different registers. "**AH**" register as the mode of the code and "**DL**" to store the value which will be printed using the "**INTERRUPT ROUTINE 21H**". We will repeat the process for printing multiple letters. We can both use the character or their ASCII value.

CODE:

```
.MODEL SMALL
.STACK 100H
.DATA

.CODE
MAIN PROC
    MOV AH,2
    MOV DL,'M'
    INT 21H
    MOV DL,'A'
    INT 21H
    MOV DL,'H'
    INT 21H
    MOV DL,'F'
    INT 21H
    MOV DL,'U'
    INT 21H
    MOV DL,'J'
    INT 21H
    MOV DL,'U'
    INT 21H
    MOV DL,'R'
    INT 21H
```

ID-192311014

```
MOV DL,20H
INT 21H

MOV DL,'R'
INT 21H
MOV DL,'A'
INT 21H
MOV DL,'H'
INT 21H
MOV DL,'M'
INT 21H
MOV DL,'A'
INT 21H
MOV DL,'N'
INT 21H
MAIN ENDP
END MAIN
```

The screenshot shows the emu0086 - assembler and microprocessor emulator 4.03 window. The interface includes a menu bar (file, edit, bookmarks, assembler, emulator, math, ascii codes, help), a toolbar with icons for new, open, save, compile, emulate, calculator, converter, options, help, and about, and a main text area displaying the assembly code. The code is as follows:

```
01 .MODEL SMALL
02 .STACK 100H
03 .DATA
04
05 .CODE
06 MAIN PROC
07     MOV AH,2
08     MOV DL,'M'
09     INT 21H
10     MOV DL,'A'
11     INT 21H
12     MOV DL,'H'
13     INT 21H
14     MOV DL,'F'
15     INT 21H
16     MOV DL,'U'
17     INT 21H
18     MOV DL,'J'
19     INT 21H
20     MOV DL,'U'
21     INT 21H
22     MOV DL,'R'
23     INT 21H
24
25     MOV DL,20H
26     INT 21H
27
28     MOV DL,'R'
29     INT 21H
30     MOV DL,'A'
31     INT 21H
32     MOV DL,'H'
33     INT 21H
34     MOV DL,'M'
35     INT 21H
36     MOV DL,'A'
37     INT 21H
38     MOV DL,'N'
39     INT 21H
40 MAIN ENDP
41 END MAIN
```

The status bar at the bottom shows 'line: 41', 'col: 13', and a 'drag a file here to open' prompt. The Windows taskbar at the very bottom shows the search bar, taskbar icons, and system tray information including network speed (0.01 MB/s), disk speed (0.00 MB/s), temperature (19°C), and time (8:56 PM 1/18/2022).

CSE-334

