**RAJSHAHI UNIVERSITY OF ENGINEERING AND TECHNOLOGY**

|  |  |
| --- | --- |
| RUET 09 | |
| LAB REPORT  Course No: CSE 3110  Date of Submission: 03.07.2019 | |
| Submitted to:  Biprodip Pal  Assistant Professor,  Department of Computer Science and Engineering  Rajshahi University of Engineering and Technology | **Submitted by:**  Riyad Morshed Shoeb  Roll No: 1603013  Section: A  Department of Computer Science and Engineering  Rajshahi University of Engineering and Technology |

**Problem: Take a string as input containing uppercase and lowercase letters which will terminate at an asterisk. Then print the first and last uppercase letters of the string.**

**Code:**

.MODEL SAMLL

.STACK 100H

.DATA

INPUT\_MSG DB 'ENTER A STRING (END WITH A \*): $'

OUTPUT\_MSG DB 'FIRST AND LAST UPPERCASE LETTER: $'

UPPERCASE\_COUNTER DB 0 ;TO FIND FIRST AND LAST UPPERCASE LETTER

.CODE

MAIN PROC

MOV AX, @DATA

MOV DS, AX

;INPUT PROMPT

MOV AH, 9

LEA DX, INPUT\_MSG

INT 21H

;INPUT SECTION

MOV BL, '\*' ;TO COMPARE LATER

INPUT\_SECTION:

MOV AH, 1

INT 21H

MOV BH, AL

;IF INPUT=='\*'

CMP AL, BL

JE OUTPUT\_SECTION

;ELSE IF INPUT>=65 AND INPUT<=90

MOV AL, BH

CMP AL, 65

JB INPUT\_SECTION

MOV AL, BH

CMP AL, 90

JA INPUT\_SECTION

;ELSE

;THE INPUT IS UPPERCASE

CMP UPPERCASE\_COUNTER, 0

JE FIRST\_UPPERCASE

MOV CH, BH

INC UPPERCASE\_COUNTER

JMP INPUT\_SECTION

FIRST\_UPPERCASE:

MOV CL, BH

INC UPPERCASE\_COUNTER

JMP INPUT\_SECTION

OUTPUT\_SECTION:

;TO PRINT NEWLINE

MOV AH, 2

MOV DL, 10

INT 21H

MOV DL, 13

INT 21H

;OUTPUT PROMPT

MOV AH, 9

LEA DX, OUTPUT\_MSG

INT 21H

;PRINT OUTPUT

MOV AH,2

MOV DL, CL

INT 21H

MOV DL, CH

INT 21H

MOV AH, 4CH

INT 21H

MAIN ENDP

END MAIN

**Output:**

