CSE 331L / EEE 332L

Microprocessor Interfacing & Embedded System

Section: 5, Fall 2020

Lab- 05

---

1. Take a user input; if the input is character 1 or 3 or 5 display 'O'. If it is 2 or 4, display "E". If it is anything else, do nothing. (follow example 8)

2. Prompt the user to enter a line of text and store it into the array. Terminate the program only if the user inputs a carriage return. (follow example 7)

3. Read a character and check if it is a digit.

4. Read a character and check if the input contains an even number.
   **hints: use logic operation.
5. Write a program using the Loop instruction to print **all letters** each in a new line as follows (must print all 26 letters):

A
B
C
.
.
.
Y
Z

6. Create two strings of size 12. Load one of the strings with user input characters (use loop). The second string should be kept blank.
   a) Copy the contents of the first string into the second string in the **same** order.
   (use loop)

Hints: you can use one index register (BX/SI/DI/BP) for both the strings. Initialize it with the first index number of the strings that is 0.

For example: MOV SI, 0

Then use it to copy elements from one string to the other in loop.

For example:
```
MOV AL, STR1 [SI]
MOV STR2[SI], AL
INC SI
LOOP LABEL_NAME
```

b) Copy the contents of the first string into the second string in the **reverse** order. (use loop)

Hints: you can use two different index registers (BX/SI/DI/BP) for the strings. Initialize one with the first index number of the source string that is 0 and the other with the last index number of the destination string that is 11.

For example: MOV SI, 0
MOV DI, 11

Then use them to copy elements from one string to the other in reverse order in loop.

For example: MOV AL, STR1 [SI]
MOV STR2[DI], AL

7. Replace each uppercase letter in the **following string** by its lowercase equivalent and print the converted string using string output function (function# 9). Use index addressing mode (use any of BX/SI/DI/BP for indexing).

MSG DB "THISISCSELABASSIGNMENT$"