

Lab 6: String Manipulation

Requirements:

1. This assignment as well as other assignments in this class must be finished on Windows operating system.
2. Your procedures must use instruction scasd for comparing string characters.
3. Zip your program submit on Canvas
4. Due 11:59pm Dec. 2, 2013

Assignments:

Part I:

Please implement the following procedure:

```
; Trims a given trailing character from a string;  
; The second argument is the character to trim  
string_trim proto, pString:PTR BYTE, char: BYTE
```

Please use at least the following strings for testing:

```
.data  
string1 byte "abcd efgh ijk&&&&",0  
string2 byte "abcd efgh &&&ijk",0  
string3 byte "&&&&",0  
  
trail = '&'
```

Part II:

Please write a procedure, *Str_nextword*, which is similar to a tokenizer. Here are the requirements for procedure *Str_nextword*

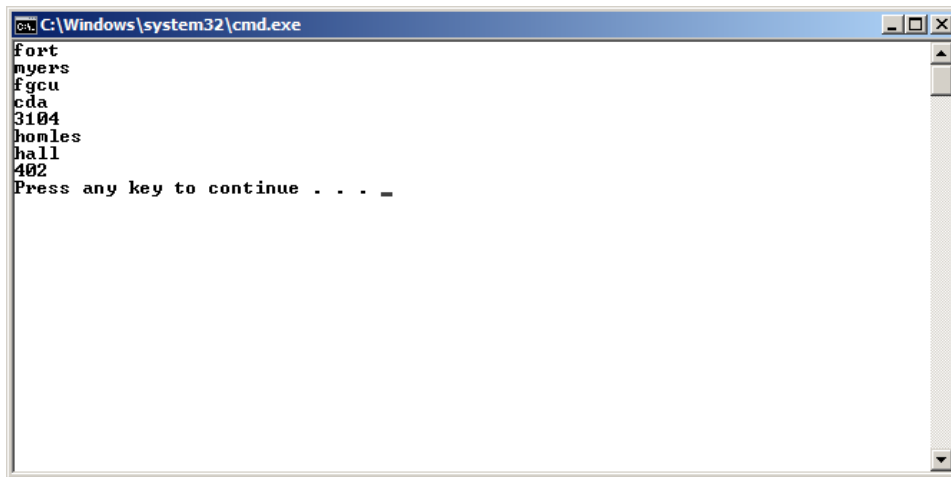
1. It has two parameters. One is the offset where the procedure starts searching for the next word. The other is the delimiter, which is always ' '.
2. If the procedure finds a next word, it sets ZF. Otherwise, it clears ZF.
3. If the procedure finds a next word, it sets the following delimiter to null/0. (What if you do not find any following delimiter?)
4. If the procedure finds the next word, where this word begins is saved in EDI.
5. In this procedure, you can use an existing procedure: *Str_length*. It is to assign EAX the length of a string, excluding its null character. The parameter of this procedure is the offset/address of the string.

You are required to use the following piece of program:

```
Str_nextword PROTO,  
    string:PTR BYTE,  
    delimiter:BYTE  
  
.data  
msg byte "    fort    myers    fgcu    cda    3104    homles hall    402",0  
  
.code  
main PROC  
    ; tokenize msg  
    exit    ; exit to operating system
```

main ENDP

Your output should look like

A screenshot of a Windows command prompt window. The title bar reads "C:\Windows\system32\cmd.exe". The window contains the following text:

```
fort  
myers  
fgcu  
cda  
3104  
homles  
hall  
402  
Press any key to continue . . . _
```

Grading Policies:

| | |
|--|-----|
| Correctly implement testing drivers (main procedure) | 20% |
| Correctly implement method <i>Str_nextword</i> | 40% |
| Correctly implement method <i>string_trim</i> | 30% |
| Correct output | 10% |