

Due Date: Friday, February 9, 11:59 pm.

Purpose: Practice with strings

1. Two string functions

Given the file 'mystr.h'

```
#ifndef mystr_h
#define mystr_h

#include <stdlib.h>

/* Given a string pointed to by 'str'
   put the next word in 'word'. "words" are defined as sequence of
   alphabetic characters separated by blanks.
   The function must return a pointer to the char after the 'word'
   Return NULL if no word was found.
   'str' only characters: 'a' - 'z', 'A' - 'Z', and ' '
*/

char * next_word(char *str, char *word);

/* replace all duplicate consecutive blanks with a
   single blank character.
*/

void remove_dup_blanks(char *str);

#endif /* mystr_h */
```

Write the corresponding *mystr.c* file.

2. Main program

Write a main program that will read a single line from stdin and print each word on a new line. It also must print the line with all duplicate blanks removed. You may assume, that a line has no more than 80 chars and a word no more than 20.

Note, you can use the following to eliminate the linefeed character at the end of the line:

```
char line[LINEL+1], word[WORDL+1];  
fgets(line, LINEL+1, stdin);  
line[strlen(line)-1] = '\0';
```

Show that your program works!

3. Makefile

Write a Makefile to compile the file into the executable *lab3*.

To pass in the lab: Create a single pdf document with all answers. Also include the source files separately. Submit these files to the Desire2Learn dropbox. Name your documents `LastName_FirstName_Lab3.pdf` and `LastName_FirstName_Lab3.zip` (`LastName` and `FirstName` are of course substituted with your last and first name).