

# CS 23 PROGRAMMING PROJECT 1: MYSTRING

## 1. GOALS

The goal of this programming project is to test the student's proficiency in C programming with special emphasis on pointer operations. It also tests the students proficiency when using GNU development tools.

## 2. SPECIFICATIONS

Write a program in C that does the following:

- (1) Write a program that accepts one (1) string. the string will come in the form 'verb subject predicate?' (ie. are you sleepy?)
- (2) The subject and verb are single words. while the predicate can be multi-worded.
- (3) The program should answer either in the form 'subject verb predicate' or 'no, subject verb not predicate' at random
- (4) Include a Makefile that allows for the following targets: clean, all, default and mystring.
- (5) Include a rudimentary man page
- (6) Include a README file that describes the nature of the program and how to compile, and run the program (description in plain language)

## 3. NOTES

- ★ Only allowed to use pointers and dynamic memory. not statically defined variables and arrays
- ★ Not allowed to use `string.h` methods (ie. `strcpy`, `strcat`, `strlen`, etc ...) must write your own versions
- ★ Each own version of the string functions must be contained in a separate source file "mystring.c"
- ★ Name of the main source file must be "main.c".
- ★ Filename of the binary must be "mystring"
- ★ Program must be compiled with the `-Wall` and `-Werror` flags.
- ★ Program must abide by the class' coding standards.
- ★ Program is due on January 5 2004 @ 1:00PM.
- ★ All the files must be tarred and compressed. The file name must be "<family name A>-<family name B>.tar.gz". For example, `chua-yu.tar.gz`.
- ★ Only maximum total bonus of 10 points can be attained.
- ★ No bonus will be given if the program breaks or ends abnormally - regardless of the options or early bird submission.
- ★ Late submission will be deducted 10 points for each day (Sundays and Holidays Included).
- ★ Final submissions must be emailed to the instructor at `wyy@penoy.admu.edu.ph`.

- ★ Students should not edit or create a new tar.gz file in penoy. If in the case of undelivered mail, the date of last modification time of the tar.gz file will be used as the basis of the project submission.

#### 4. GRADING

- 20% Program compiles, links and executes properly
- 10% Program includes the Man pages and a working Makefile
- 35% Program responds properly to questions
- 30% Proper implementation of string functions
- 5% Program must follow proper coding and documentation standards
- 10% BONUS: if program properly understands special case for "You" and "I" especially for subject and verb transformations.

DEPARTMENT OF INFORMATION SYSTEMS AND COMPUTER SCIENCE, ATENEO DE MANILA UNIVERSITY,  
LOYOLA HEIGHTS, QUEZON CITY, 1108 PHILIPPINES  
*E-mail address:* wyu@ateneo.edu