cis15-fall2007-sklar, assignment VI

instructions

- This is assignment for unit VI.

- It is worth 5 points.

- **It is due on Monday December 10** and must be submitted by email (as below).

- **Follow these emailing instructions:**

  1. Create a mail message addressed to **sklar@sci.brooklyn.cuny.edu** with the subject line **cis15 hw6**.
  2. Attach ONLY **hw6.cpp** and, optionally, **mystring.cpp** and **mystring.h**.
  3. Failure to follow these instructions will result in points being taken away from your grade. The number of points will be in proportion to the extent to which you did not follow instructions... (which can make it a lot harder for me to grade your work — grrrr!)

description

For this assignment, you will write a program with two functions that help you explore **recursion**.

a. printing a string

(2 points)
Create a file called **hw6.cpp**. In it, write a program that prompts the user to enter a string, reads the string and stores it as an array of `char`, then displays it, one character at a time.

Design requirements:

- Create a class called `mystring`, which contains a private member that is an array of `char`, a constructor, and a recursive function called `print()`.

- You MUST use recursion for `print()`!

- If you want, you may create separate files **mystring.cpp** and **mystring.h** for defining the class, or you can keep it all in one file—that's up to you.

Compile, link and run your code. Test it to make sure it works robustly.

b. printing it backwards

(3 points)
Modify **hw6.cpp** to include another recursive function in your class called `printback()` that prints out the string backwards. In other words, if I enter the string: `HELLO`, then the program should output: `OLLEH`.

- As above, you MUST use recursion for printing the string.

Compile, link and run your code. Test it to make sure it works robustly.