

CS23021 Computer Science I

Project #3

Due by 11:59pm on Monday, November 24, 2008

You will write two programs in this project. The first program “sort” eliminates double entries in the sequence of integers. The second program “fixer” corrects syntax errors in English text.

Sorter. Write a program that accepts a sequence of integers (some of which may repeat) as input and prints out the integers in sorted order using an “Insertion Sort” algorithm. You can assume that there are no more than 20 integers in the input, but there may be less. Zero signifies the end of input. It should be NOT printed.

For example, when the following input is provided to your program:

```
5 6 22 2 5 22 7 6 0
```

your program should print:

```
2 5 5 6 6 7 22 22
```

You must use an array to store the numbers. Place your program in a single file named: `sorter.cpp`

Fixer. Write a program that reads English text. The program should output the text with spacing corrected and with letters corrected for capitalization (i.e. the first letter of the first word in a sentence must be capitalized, but subsequent words are not capitalized). In particular, in the output text all strings of two or more blank spaces should be compressed to a single blank. A sentence (a letter starting the text and following a dot) should start with an uppercase letter. There should be a space after a comma or a dot. No other formatting is required. Assume that a comma or a dot always follow a number or a letter (i.e. cannot be preceded by a space or other punctuation mark).

For example, the input:

```
the Answer to life,the Universe, and everything is 42.
```

Should produce the following output:

```
The answer to life, the universe, and everything is 42.
```

Empty line signifies the end of input. This empty line should NOT be output.

You must use a C++ string to store a line of input. Place your program in single file named: `fixer.cpp`

Submit your project into the subversion repository under subdirectory `Project3`. Note that for each program you have to create a separate project for each of the above programs and deposit these projects in `Project3` subdirectory.