

# **COP4342: Homework #4**

Due on Wednesday, October 24, 2007

## Text message reformatting, filtering

In this assignment, you are again asked to do reformat the all-caps text messages as distributed by the National Weather Service. However, this time your assignment is to go back and modify both your BASH and Perl versions so that they can work as a filter.

Remember, these messages usually appear something like

```
SPECIAL TROPICAL DISTURBANCE STATEMENT

NWS TPC/NATIONAL HURRICANE CENTER MIAMI FL

845 AM EDT WED SEP 12 2007

SATELLITE AND NWS RADAR OBSERVATIONS INDICATE THAT THE AREA OF LOW
PRESSURE IN THE NORTHWESTERN GULF OF MEXICO IS BECOMING BETTER
ORGANIZED THIS MORNING. THIS SYSTEM COULD BECOME A TROPICAL
DEPRESSION LATER TODAY...AND AN AIR FORCE RESERVE UNIT
RECONNAISSANCE AIRCRAFT WILL INVESTIGATE THE AREA EARLY THIS
AFTERNOON. THE LOW IS MOVING SLOWLY NORTH-NORTHWESTWARD...AND
REGARDLESS OF WHETHER OR NOT IT BECOMES A TROPICAL CYCLONE...HEAVY
RAINS ARE EXPECTED TO SPREAD ACROSS SOUTHEASTERN TEXAS AND
LOUISIANA OVER THE NEXT COUPLE OF DAYS. FOR INFORMATION SPECIFIC
TO YOUR AREA...PLEASE CONSULT STATEMENTS ISSUED BY YOUR LOCAL NWS
FORECAST OFFICE.

FORECASTER FRANKLIN
```

Your task this time will be to rewrite both your BASH and Perl scripts so that each accepts any number of these messages and reformats them, or if either program finds no filenames specified the program then reads from standard input and writes to standard output.

So the new requirement is that if no message files are specified on the command line, then (1) Your program should read from standard input and write the reformatted message out to standard output (2) Your program should then terminate when it comes to the end of input from stdin.

You may update/improve either of your programs in any other ways that are consistent with the strictures laid in out in assignments 2 and 3.

### Specifications

Please name your BASH script `NWS-2007-10-25.sh`, and your Perl script `NWS-2007-10-25.pl`.

Your program should accept from the command line a series of filenames, or if it finds no filenames, it should read and write from stdin and stdout. For instance, it should be able to take:

```
% ./NWS-2007-10-25.pl advisory.txt discussion.txt out.txt summary.txt update.txt
% ./NWS-2007-10-25.sh < advisory.txt > /tmp/output
```

If filenames are specified, then for each of these files named `FILE`, your program should continue to create a new result file named `FILE.OUT`. If data is read from stdin, output should go out stdout.

**Homework submission**

Please email both of your scripts `NWS-2007-10-25.pl` and `NWS-2007-10-25.sh` as attachments to `cop4342@cs.fsu.edu` by no later than 11:59pm on Wednesday, October 24.