

# Project 3

Due: May 17  
Points: 25

Write a Perl script that takes a plaintext file (copy `project3Data.txt` that is under `/u/home/ramki` on `cs.du.edu`) as input and creates a formatted file according to the following rules:

1. Each Section should be treated like a separate chapter. Section heading should be perfectly centered and the name of the author (if any) should be on the line below starting from the first character of the right half.
2. There should be a table of contents
3. Each Section should be broken up into separate pages and each page should be numbered. Number of the number of characters per line and lines per page should be variables that can be set in the script. These can be overridden by arguments to the script. For example,  

```
$ ./project3.pl --chars=40 --lines=60
```

The default values should be 80 and 100.
4. The page numbers for the Table of Contents should use roman numerals
5. There should be an index that will list a set of key words and the page numbers in which they occur. To create a set of keywords use the following rule: if a word appears in the question and in the answer, then it is a candidate for to be included in the index. If there are more than 10 occurrences of that word in the file, you can omit that word from the index. (Extra credit: Think of clever ways of indexing phrases.)
6. Do a diff of your output to `project3Out.txt` under `/u/home/ramki` directory on `cs.du.edu` to compare your output.

Here are some guidelines for your script:

- Employ the right data structure for each role
- Write subprograms for repeated tasks
- Put powerful constructs from Perl such as REs, `split`, `tr`, and substitution functions etc. to use in your script to do the work
- Comment your code

This is a big project-you won't be able to finish it if you wait until the day before it is due!