Programming Project #2
CpSc 8270: Language Translation
Computer Science Division, Clemson University
5|>34|<1|\|6 1|\| 1337
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Due Date:

In order to receive credit for this assignment, your solution must meet the requirements specified in this document and be submitted, using the handin web page, by 8 AM, Thursday, September 15*th*, 2016. The handin close date is set at three days after the due date. If you submit after the due date but before the handin close date there will be a ten point deduction. No submissions will be accepted after the handin close date and no submissions will be accepted by email.

Project Overview:

1337 is an alternative vocabulary and alphabet that is used primarily on the Internet as a specialized form of symbolic writing. l337 was originally used by computer hackers but it has evolved as a tool for encryption or obfuscation, which some Internet users feel is necessary in help combat the proliferation of hackers attempting to steal passwords and other information. Some of you may already be using l337; for example, some DPA passwords are encoded in l337.

Project Specification:

Your assignment is to use the GNU tool, flex, to build a translator from *English* to *l*337, and from *l*337 to English. The purpose of this project is to provide an opportunity for you to learn to use the tool flex, and to gain some experience with *l*337 translation. To test your *l*337 translator we will use your english to leet translator (etol) to encode a message from english to *l*337 , then we will use your leet to english translator (ltoe) to decode the message.

If your *l*337 translator translates "ordinary" *l*337 you will receive 90% as your grade. If you can build a *l*337 translator with more obfuscation, or other enhancement or pizzazz, you will receive 100% as your grade.

There are many dialects, or accepted versions of *l*337, ranging from basic l337 to advanced, or pro l337. One possible enhancement is to translate digits into the corresponding word, so that the digit 1 would translate to *one*, 2 would translate to *two*, etc.
You must submit your assignment using the web handin command, which can be found at:

`https://handin.cs.clemson.edu`

Sample Execution:

As an example of translating from etol, consider the following:

```
7h15 15 4 l337 53n73nc3.
```

Then, using the above *l*337 expression as input to ltoe:

```
this is a leet sentence.
```

Information about *l*337:

There is a lot of information on the Internet about 1337, and there are translators:

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http://en.wikipedia.org/wiki/Leet
http://simple.wikipedia.org/wiki/Leet#Wrong_grammar
http://1337.me/
http://www.robertecker.com/hp/research/leet-converter.php?lang=en
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