

Programming Project #2  
CpSc 8270: Language Translation  
Computer Science Division, Clemson University  
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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 21<sup>st</sup>, 2018. 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. 1337 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.

## Project Specification:

Your assignment is to use the GNU tool, **flex**, to build a translator from *English* to *l337*, and from *l337* 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 *l337* translation. To test your *l337* translator we will use your *english* to *leet* translator (**etol**) to encode a message from english to *l337* , then we will use your *leet* to english translator (**ltoe**) to decode the message.

There are many dialects, or accepted versions of *l337*, ranging from basic *l337* to advanced, or pro *l337*. If your *l337* translator translates “ordinary” *l337* you will receive 90% as your grade. If you can build a *l337* translator with more obfuscation, or other enhancement or pizzazz, you will receive 100%.

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 1337 53n73nc3.

Then, using the above *l337* expression as input to ltoe:

this is a leet sentence.

## Information about l337:

There is a lot of information on the Internet about l337, and there are translators:

<http://en.wikipedia.org/wiki/Leet>

[http://simple.wikipedia.org/wiki/Leet#Wrong\\_grammar](http://simple.wikipedia.org/wiki/Leet#Wrong_grammar)

<http://1337.me/>

<http://www.robortecker.com/hp/research/leet-converter.php?lang=en>

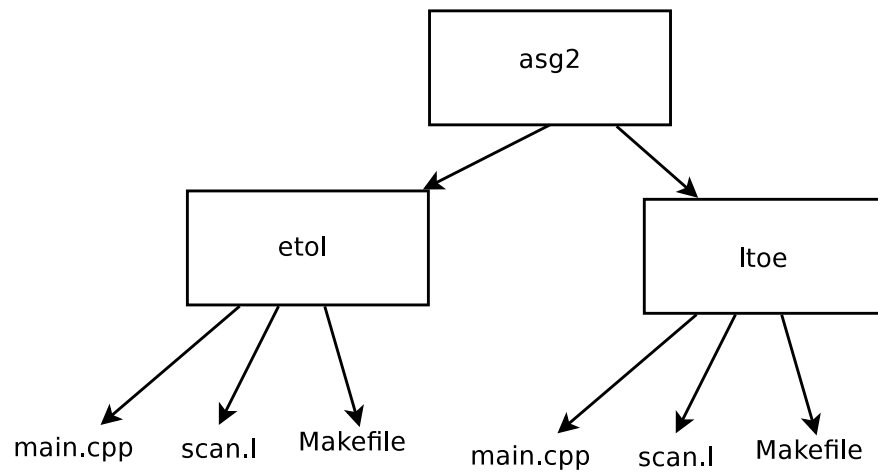


Figure 1: **Directory Structure.**