Project #4
CpSc 8270: Language Translation
Computer Science Division, Clemson University
Introduction to a parser for Python 2.7.2
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Due Date:

In order to receive credit for this assignment, your project must be submitted, using the `web handin` command, by 8 AM, Thursday, October 27th of 2016. If you are unable to complete the project by the first due date, you may submit the project within three days after the due date with a ten point deduction.

Project Specification:

The Python web site provides the source for all versions of Python and, for this project, you will be using a version of the grammar for Python 2.7.2 that a colleague of mine and I downloaded, and converted from EBNF to a format compatible with the bison parser generator. The procedure that we used is described in a paper that we submitted to a conference titled Extending Automated Grammar Convergence to the Generation and Verification of Multiple Parser Versions; the title of the paper is based on the assumption that the longest and most confusing title wins! You will be given an opportunity to read this paper.

The bison parsable grammar, a scanner, main program, a suite of test cases, and a test harness, is provided for your use in a directory in your repo:

```
8270Assets-2016/projects/4/
```

If you run the test harness you will see that not all of the test cases pass; this is due to the shift/reduce conflicts in the grammar. Your project is to eliminate the few remaining conflicts from the grammar so that all but seven of the test cases pass, and insert semantic actions into the grammar to evaluate expressions involving: `print, +, -, *, /, //, %, (), **`.

Thus, your tasks include:

1. Remove the conflicts in the grammar so that 1533 of the test cases pass.

2. Insert semantic actions into the parser to evaluate expressions involving the operators listed above.

Compress and submit your project in the usual manner.