CMPS 450 001

Fall 2007

Semester Project

You are to implement a recognizer for the Algol 60 programming language as defined in the Report on the Algorithmic Language Algol 60. Your implementation must be written in the Snobol4 programming language. You may use most of the Snobol4 interpreters available on the web or the Snobol4 interpreter on the UCS machines. You must indicate which compiler/interpreter you used when you turn in your project. Please keep in mind that whatever you use must be available for the grader to use to grade your project.

For this project, you should depart from the Algol 60 specification in the following ways:

- Ignore the "÷" symbol in the <arithmetic operator> production in sections 2.3 and 3.3.1
- Use ">=", "<=", and "\=" in place of "≥", "≤", and "≠" respectively in the <relational operator> production in sections 2.3 and 3.4.1
- Use "and", "or", "not", "->", and "==" for "∧", "∨", "¬", "⊃", and "≡" respectively in sections 2.3 and 3.4.1
- Ignore all occurrences of <exponent part> and all occurrences of "$_{10}$" throughout the report
- Use "^" in place of "↑" in all productions
- You may assume that there are no nested strings and that all strings begin with a single quote, end with a single quote and contain no single quotes.
- In section 4.7.1 the right hand side of production <parameter delimiter> should read: , |) <letter string> :(

In designing your solution you should only concern yourself with the syntactic or structural aspects of the language. You are not to concern yourself with the semantic aspects of Algol 60. That is you are not concerned that a given program "makes sense". Your solution, when given a syntactically legal Algol 60 program should simply respond with "Yes". When given anything else, your solution should respond with "No". Nothing else is expected or desired.

The submission of the first draft of your solution is due by 10pm Wednesday September 19th 2007. The documentation folder for the first draft is due in class on Thursday September 20th. The first draft is worth 50% of the overall project grade and must include a detailed, fully documented, algorithm along with a draft of the implementation. The submission for the completed project will be due by 10pm Monday November 19th, 2005. The documentation folder for the project (including a hard copy of the submitted code) is due in class on Tuesday November 20th, 2005.

This is not a group project. The solution you submit must be your own work. However, you are free to discuss the use of Snobol4 and possible interpretations of the Algol 60 report.