Semester Project – Part 1 – CSE244 – Fall 2000

Due Dates: Thursday, October 5 and 12, 2000

September 25, 2000

The project for the Fall 2000 Semester will focus on the design and implementation of a Latex subset for text processing. Specifically, this project will be subdivided into three major parts.

1. Design and develop a context free grammar (CFG) for a subset of Latex.

2. Design, implement, and test the common CFG (which we will provide to you at a later date) using Lex (Flex) and Yacc (Bison).

3. Design, implement, and test a syntax-directed translator based on Part 2 that automatically generates formatted ASCII text and/or HTML/XML from an input Latex source file.

The first part of the project is divided into two major tasks.

• Due: Thursday, October 5, 2000 at Start of Class

  Design a CFG for the project that allows Latex programs (e.g., text to be formatted) to be recognized. This will provide you with important language design experience.

• Due: Thursday, October 12, 2000 at Start of Class

  Calculate FIRST and FOLLOW for the "Common Grammar" that will be posted on the web page for all of the non-terminals in the grammar. Show your work on FOLLOW so that we know you are doing the calculation correctly! The Common Grammar will be posted on Friday, October 6, 2000 by 12:00 noon.

Neither of these tasks require you to develop and/or implement code. This is a design project!!!

The first part of the project is worth 50 points and must be done individually by each student!

To provide a background for the semester project, a detailed overview of the Latex subset that you’ll be implementing along with a sample latex input file has been posted on the class web page.