**Bonus Objectives**

1) CUP allows you to implement a limited form of error recovery, using the `error` keyword. This allows the parser to essentially skip over buggy branches of the syntax tree and continue parsing the rest of it, possibly discovering more errors. Consult the CUP manual for more information.

**Objective: Implement error recovery functionality as best as you can.** (7 points)

2) The IC language has a small bug, that was overlooked in order to simplify the syntax. Since variable declaration (i.e., `int x;`) is considered as one of the “Statement” non-terminals, the following code, for example, is syntactically legal:

```plaintext
if (...)
int x;
```

This type of code – a conditional statement followed immediately by a variable declaration not inside curly braces - is considered a syntax error in any real C-like language (can you figure out why?).

**Objective: Make the necessary changes to the IC language syntax and to your parser so that this situation is detected as a syntax error.** (8 points)