Paladim - Milestone hand-in

December 4, 2013

1 Parser implementation

We've implemented the parser in mosmlyac using the grammar given in the GroupProject.pdf as a starting point. To make the grammar suitable for LR(1)-parsing we made some transformations of the grammar:

1. We've made `if-then-else`-statements right-associative (simply by using `%right`) in mosmlyac. This means that an `if` will bind to the closest `else`. This is the only transformation that actually change the language though it was necessary as the given grammar is ambiguous.

2. All nonterminals of the form $X \rightarrow \alpha | X\alpha$ has been transformed to $X \rightarrow \alpha | \alpha X$. This has been done as SML-lists are most effectively constructed by using `::`.

3. In the production $Exp \rightarrow Exp\ OP\ Exp$, OP has been replaced with the actual operator-terminals. This was done to unhide operator precedence for mosmlyac.

2 Testing

3 Ideas for other tasks

3.1 Integer multiplication and division and boolean operators

3.2 Type-checking