J2Latex Documentation

The goal of the project has been to write a compiler which would take a Java class a produces a nicely formatted LaTeX or HTML document of it. To achieve this goal a Java grammar has been implemented using JavaCC and two Visitor-classes (asLatex.java, asHTML.java) have been created. The project does not cover every feature of the Java language and can be extended to support more features in the future. The following features have been implemented:

- All Operators
- All Keywords
- Typecasts
- If/ElseIf/Else
- Switch/Case/Default
- Exceptions(Try/Catch/Finally und Throw/Throws)
- Class definitions
- Anonymous inner classes
- Interfaces
- Functions
- Class variables
- Constant values
- Hex,Oct and Decimalconstants
- String and Charconstants
- Extends/Implements
- Generics (only single generics)
- Function annotations (@Override)
- Imports
- Packetdefinitions
- Enum and Enumclasses
- Constructors including super()

Sample classes for testing are provided in the sample package of the project. All classes in this package are valid Java classes and covered aforementioned features. To start the program, the class Test.java needs to be executed and will produce one output in HTML and LaTeX/PDF respectively. In figure 1 the parsetree of the application is shown:
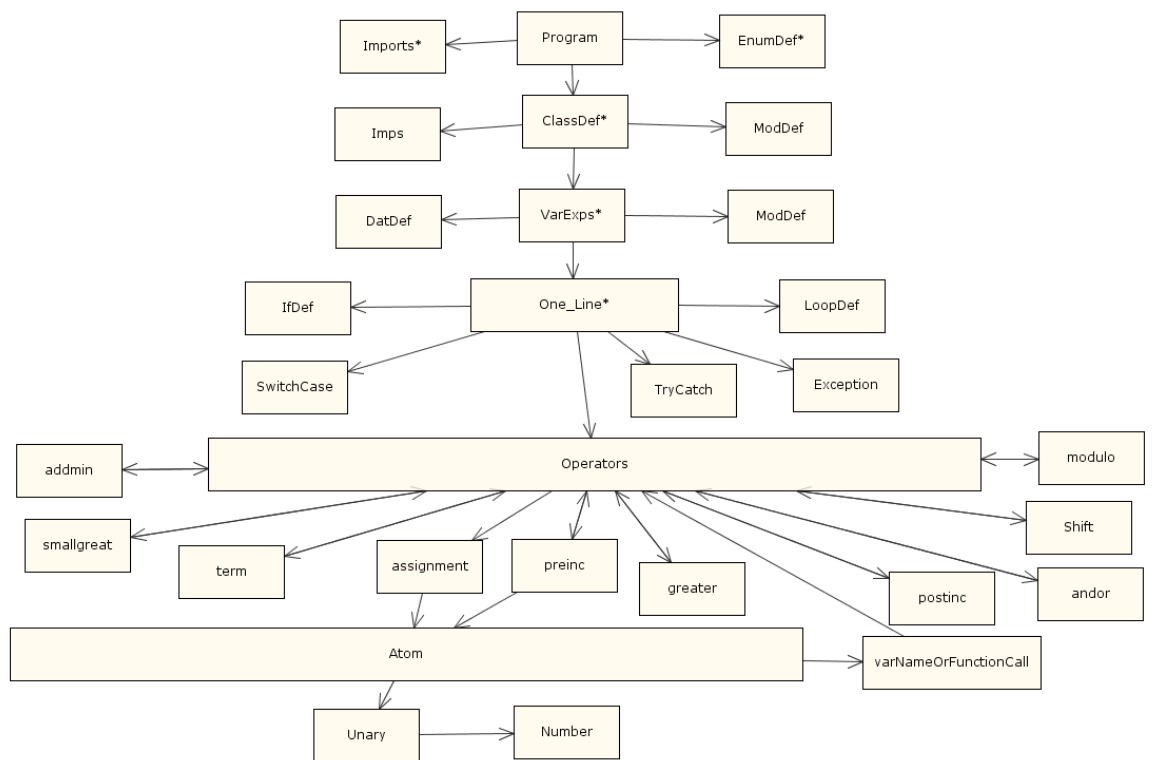
Figure 1: J2Latex Parsetree