## **Assignment 2**

Construct models for proofs using natural semantics and structural operational semantics as described in Nielson, chapter 2, and implement functions/methods

- to convert these models to external representation (show/toString),
- to check that a proof is correct

The inference rules use variables as place holders for statements and expressions. You may have to extend the abstract grammars for statements and expressions with such variables. You have to decide how to represent states.

Optionally you may implement support for doing proofs by induction, i.e. induction on the shape of derivation trees and induction over the length of a derivation sequence.