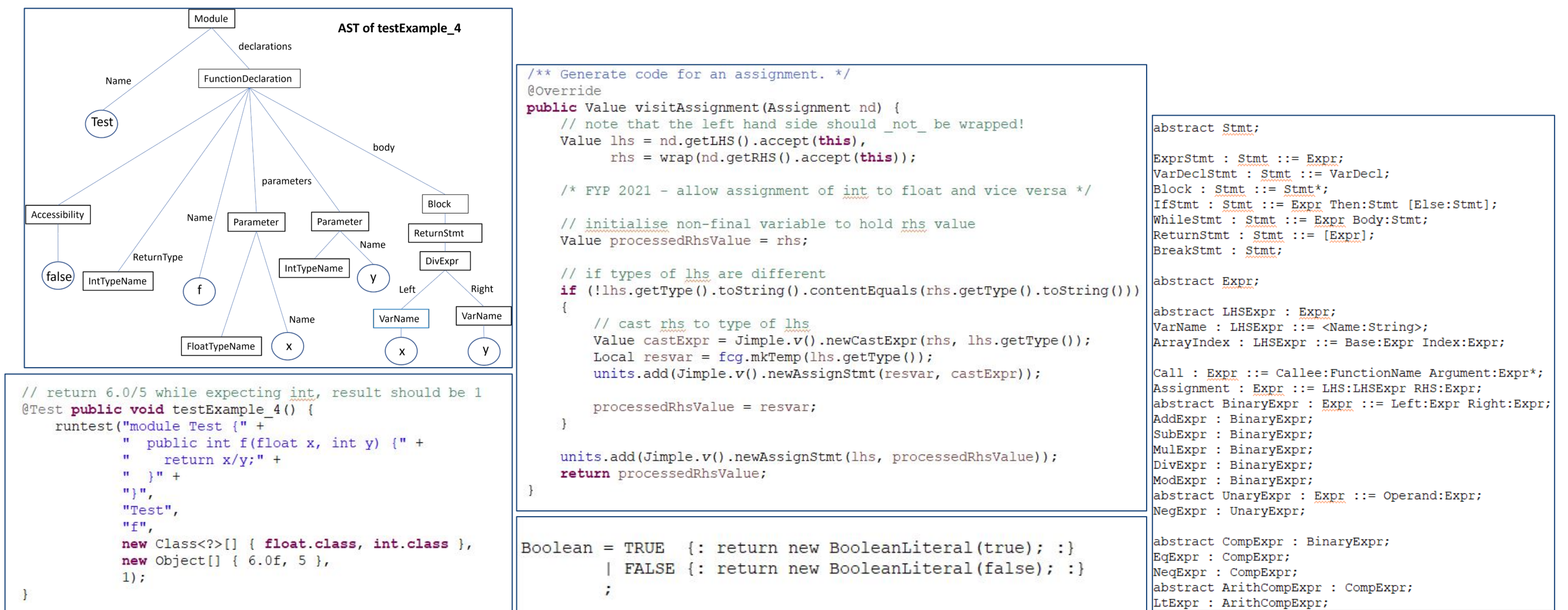


# Building a Compiler

## A contribution to the CZ3007 Compiler Techniques Lab Project

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### Project Summary:

A compiler is a translator that translates a program in a high-level programming language like C++ or Java to a machine executable program. This project builds a compiler to translate a high-level programming language source program to Java Virtual Machine (JVM) bytecode that can be executed on a JVM machine. From the compiler built, several student projects are created to provide students with first-hand experiences for building the main components of a compiler – lexical analyser, syntax analyser, semantic analyser and code generator, with critical dependencies among the projects managed. Through these projects, students are able to study the complex technicalities behind the development of a compiler. Some examples are the building of the AST, its usage for type/scope checking at the semantic analysis phase, and code generation for mixed data type operations.

