Design decisions: Milestone 1

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1   Language choice

We initially considered C, Java, and Python as potential implementation languages, based on our shared familiarity with them. We decided not to use C because of the extra development costs incurred by using a language without features like memory safety. We opted for Java over Python because we judged there to be more resources for compiler development available.

2   Tool choice

We decided to use SableCC 3 because it made it easy to implement a full scanner/parser toolchain with utilities for AST traversal, and because there was in-class support for it. This was very useful, for instance, in the case of semicolon insertion.

That choice determined most of the design for the scanner, parser, and for the weeder, which we implemented with one depth-first AST traverser.