Language Design Proposal Template

Student Name(s): Your name(s)
Language Name: The name of your language

Compiler Implementation Language and Reasoning: The language you're planning to write the compiler in, and why. It's completely acceptable to pick a language because you're familiar with it. If you're not familiar with the implementation language already, say so.

Target Language: The output language for your compiler. Can be anything (assembly, LLVM bitcode, JVM bytecode, CLR bytecode, JavaScript, etc.). See the project information page for details.

Language Description: a description of the language, from a high level. Why this language? What can this language do?

Planned Restrictions: is there anything that would make this language impractical to actually use? It's expected that you'll have something here. We don't have enough time to make a fully-fledged compiler and language, only enough time to get a complete start on it.

Syntax: EBNF definition of the syntax of your language. This can be either concrete, abstract, or some combination thereof. It's ok if this changes later. You should annotate non-obvious parts with what they mean.

Computation Abstraction Non-Trivial Feature: A non-trivial feature related to computation abstraction (see project information page for details).

Non-Trivial Feature #2: Another non-trivial feature. It may be a computation abstraction, but it's not required to be. It may also be a type-level feature. See the project information for details.

Non-Trivial Feature #3: Another non-trivial feature. It may be a computation abstraction, but it's not required to be. It may also be a type-level feature. See the project information for details.

Work Planned for Custom Milestone: What you plan to do for your custom milestone. Likely, you will want to implement a non-trivial feature during this time. If you're using a low-level target language, you do not need to plan any work for the custom milestone (you automatically get credit for it). If you are using a low-level target language, just state here that you're using a low-level target language.