An Ontology of Languages

**Low Level Languages**

- **Exp0** - a small, prefix expression language with single letter keywords, variable names, and digits.
- **Exp1** - same language as Exp0 but with full keywords and arbitrary variable names and digits. Full lexical analysis.
- **Exp1Bytecode** - a bytecode language that supports prefix expressions and branching. We introduce the notion of true and false based on integer values: true if value != 0 and false if value == 0.
- **Exp2Bytecode** - same as Exp1Bytecode but with function calls and expanded IO
- **X86-64 assembly language**

**High Level Languages**

- **Cuppa1** - a simple scripting language. no scoping and no explicit variable declaration.
- **Cuppa2** - a language just like Cuppa1 except that we have explicit scoping and variable declarations.
- **Cuppa3** - a language just like Cuppa2 but include function declarations, call statements, and expressions with functions.
- **Cuppa4** - same as Cuppa3 but now includes data types.
- **Cuppa5** - same as Cuppa4 but now includes the array data type.