**Compiler Construction Project**

Language Description:

The language we will make will facilitate a Python-like dictionary syntax for Java developers, allowing them to write code with the simplicity of Python's dictionaries which is then automatically translated to Java's HashMap structures.

Implementation Details:

Utilizing ANTLR, the compiler consists of a Lexer for tokenization and a parser for constructing parse trees from the code, which is then converted into Java syntax.

Scope:

Initially focused on dictionary handling, it has the potential to encompass broader Python features, offering Java developers a Pythonic way to manage data structures within Java applications.

Applications:

Ideal for Java developers seeking Python's syntactic elegance for data manipulation, this language could eventually be integrated into Java projects, enabling sections of code to be written in a more Pythonic way while compiling to Java.