# MileStone-1 CS335

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Feb 25, 2020

### **Directory Structure:**

- \* milestone1/src: This contains all the source files of ANTLR4 and most importantly the script file (Script.sh) and astGenerator.py. It also contain an antlr4/ directory for support of python runtime and necessary methods used for tree traversal. We list the most prominent files here:
  - 1. Java8.g4: This file contains the Lexical Rules and Parsing Grammar in the format as needed by ANTLR.
  - 2. astGenerator.py: This file is used for making an ast and dot file for Graphviz use.
  - 3. antlr4/: This Directory is for Python3 runtime purpose for antlr files.
  - 4. Script.sh: this is the file used for running Command with few options as -o for mentioning output Directory.
- $\ast\,$  milestone 1/testcases: This contains the testcase files of java type.
- \* milestone1/doc: Contains this report.

### **Execution Procedure:**

- cd into the milestone/src directory
- run the script as follows: ./Script.sh ../testcases/test\_ < number >.java -out=test\_ < number >.dot

#### Packages Used:

• The latest version of Antlr: ANTLR 4.8.

• Python3 version: Python 3.6.3+

• Graphviz version: 2.38.0

## References:

- $-\ https://stackoverflow.com/questions/21534316/is-there-a-simple-example-of-using-antlr4-to-create-an-ast-from-java-source-code$
- $-\ https://docs.oracle.com/javase/specs/jls/se8/html/jls-19.html$
- https://github.com/antlr/antlr4/blob/master/doc/python-target.md
- https://github.com/antlr/codebuff