

Name: Yuting Liu

Campus ID: 9071703566

This directory includes files including as following:

1. **P5.java**

The main program that:

- Calls the parser and report errors
- Calls the name analyzer and report errors
- Calls the type checker and report errors
- Calls unparsed function of a successful parser

2. **CFlat.jlex** (unchanged)

A JLex specification for the YES language.

3. **CFlat.cup** (unchanged)

A Java cup specification for the grammar defined in YES language.

4. **ErrMsg.java** (same as the file given in P4)

This class is used to generate warning and fatal error messages.

5. **DuplicateSymException.java** (unchanged)

This class defines duplicate Sym exception.

6. **EmptySymTableException.java** (unchanged)

This class defines empty Sym table.

7. **ast.java**

- Contains class definitions for the AST structure that the parser will build.
Un-parsing code is also added so as to make correct parsing and indent for the output file.
- Name analyzer methods are added to provide name analyzer for different node classes in AST.
- Type checker method is added to provide type checker for different node classes in AST

8. Makefile

A makefile for program 5

- run **“\$ make”** to make a parser for the YES language.
- run **“\$ make test”** to test the name analyzer and type checker with file contains no error.
- run **“\$ make testErrorGiven”** to test the error report of the type checker given online as “nameError_0.cf” and compare the error report with the given error report manually.
- run **“\$ make testError”** to test the error report thoroughly with my “nameError.cf” to test all error report should appear with certain errors
- run **“\$ make clean”** to clean all corresponding files created.

9. Test files: test.cf, nameError.cf, nameError_0.cf