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Repo: https://gitlab.cpsc.ucalgary.ca/zhijie.xia/zhijie_cpsc411_final_project

Remarks:

1. The parser can validate the syntax of input language, and produce a correct AST for the input. The output files for the *ms2* *are provided under /Milestone2/TEST/outputs*, one might want to take a look at the output files and compare them with the output of the reference parser.
2. Adapted the feedback of Milestone 1, the header file parser.h only provide prototypes and

actual implementation and main are under parser.c. Resolved all the complex dependencies.

3. Followed the manual of flex & bison, and did not reinvent the wheels by writing code that the tools already provided. Since the rules are written following the manual, an experienced flex & bison user can easily understand the different rules.

4. Using pointers and references to build an AST and avoided redundant memory allocation.

5. Adapted many obvious tree reshaping rules to provide consistency.

Potential Improvement:

1. There are still some level of redundancies, for example, an AST node stores a string called “symbol”, for some terminals , the symbol actually matches the “attribute”. A better design of the AST structure could avoid such redundancy.

2. Inorder to reshape the AST, some AST node has dummy “symbol”. A better design could improved the consistency of the AST structure and simplify the code.

Self Grading:

I would give myself 8 out of 8.

1. Parser is fully functional and provide correct results (please check */Milestone2/TEST/outputs*).
2. Following the manual of flex&bison to write code that is easy to understand.
3. Constantly commits and pushes on GitLab showing a great effort put in the project.