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1 contributor

# Compiler Design Part II – Parsing

This is the 2nd part of the parsing project, which constructs symbol table(with scope) and commands list.

## Contributors

Mengyu Zhang [mengyuzhang@uchicago.edu](mailto:mengyuzhang@uchicago.edu)

Xiang Li [lix1@uchicago.edu](mailto:lix1@uchicago.edu)

## Run

To parse a source file, just do,

```
$ ls
README.md  hw02      sample.c  setup.py  test

$ python -m hw02.main < sample.c

Define extern function with name bar
Define variable with type int and name sum
Define variable with type string and name s
Define variable with type int and name i
Assign i
Call Function bar
Assign sum
Define Iteration with variable i
Return sum
Define function with name foo

===== SYMBOL TABLE =====
count  int          foo
bar    int          extern
i      int          foo
sum    int          foo
s      string      foo
x      int          extern$bar
foo    ('FUNC', 'int') global
```

## Test

Unit tests are implemented in dir `test` .

```
$ ls test/  
__init__.py test_dec.py test_math.py
```

To run test, just do,

```
$ python setup.py test
```

Since we're using `py.test` framework, so `py.test` is required. To install,

```
$ sudo pip install -U pytest
```

## Project Structure

```
| README.md  
| hw02                                # core source file directory  
| | __init__.py  
| | clex.py                          # tokenizer  
| | cparse.py                        # parser  
| | main.py                          # entry point of the program  
| | ply                              #  
| | | __init__.py                    #  
| | | lex.py                         # PLY library  
| | | yacc.py                        #  
| | preprocess.py                    # preprocessor  
| sample.c                           # sample input file  
| setup.py                           # 'makefile' for python project  
| test                               # test directory  
| | __init__.py  
| | | test_dec.py  
| | | test_math.py
```

