

Homework 2

COSE312, Spring 2017

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Due: 04/30, 24:00

Problem 1 Implement a parser for the programming language defined as follows:

```
program → block
block → {decls stmts}
decls → decls decl | ε
decl → type x;
type → int | int[n]
stmts → stmts stmt | ε
stmt → lw = e;
      | lw++;
      | if(e) stmt else stmt
      | if(e) stmt
      | while(e) stmt
      | do stmt while(e);
      | read(x);
      | print(e);
      | block
lw → x | x[e]
e → n integer
   | lw l-value
   | e+e | e-e | e*e | e/e | -e arithmetic operation
   | e==e | e<e | e<=e | e>e | e>=e conditional operation
   | !e | e||e | e&&e boolean operation
   | (e)
```

1. Clone the Git repository for programming assignments:

```
git clone https://github.com/kupl/Compiler2017.git
```

2. You can find the `hw2` directory and find `parser.mly` and `lexer.mll`. Complete these two files. See the Github page for more information.