

## Assignment 2

You are given a java program that reads a file from a URL containing program with assignments and conditional statements. Variable are limited to single lower case letters. Values are limited to single digit integers. There are no semicolons, and list of statements within conditionals are required to be surrounded by curly brackets. The colon character indicates the end of the program, and is followed by a list of variables to print.

The BNF for the language is as follows:

```
<program>      ::= <statement>* <results>
<statement>    ::= <assignment> | <conditional>
<assignment>   ::= ID '=' <expression>
<expression>   ::= ID | VALUE
<conditional>  ::= 'if' <condition> '{' <statement>* '}'
                  [ 'else' '{' <statement>* '}' ]
<condition>    ::= '(' <expression> '<' <expression> ')>'
<results>      ::= ':' ID*
```

ID is [a-z] (one lower case letter)  
VALUE is [0-9] (one digit)

The java program parses and interprets the input program. The program outputs a html page with a reformatted program and the result of interpretation. When the program has syntax errors, an error message for the first detected error is generated.

Create a PHP program that produces exactly the same output as the provided java program.

In the coming week, we will create a web site with test cases. There might be some revisions to the provided Java program to accommodate automated testing. You will also get later details of what you need to include in your report

**Turn in:** Turn in by sending an e-mail with a .zip attachment containing your program file(s) and your report. Please use the subject line:

“CS4339 Assignment 2 submission” or “CS5339 Assignment 2 submission”.

**Late Homeworks:** The penalty for a late homework is 1% per hour for up to 10% for up to 24 hours late. Submit what you have by then. You

may submit this assignment again. The deadline for the second submission is three weeks after the original deadline. We will calculate a new grade as the average of the two submissions, up to a maximum of 80%.

**Due date:** October 2, 11:00pm.