

Assignment 1

You are given a java program that reads a file from a URL that contains a program in a simple made-up programming language with no loops..

A grammar for the language is as follows:

```
* <input> ::= <section>*
* <section> ::= '[' <statement>* ']'
* <statement> ::= <assignment> | <switch> | <output>
* <assignment> ::= ID '=' (INT | ID)
* <output> ::= 'output' (INT | ID | STRING)
* <switch> ::= 'switch' ID '{' <case>* [ 'default' ':' <statement>* ] '}'
* <case> ::= 'case' INT ':' <statement>* 'break'
* ID ::= [a-zA-Z_]+
* INT ::= [0-9]+
* STRING starts and ends with double quotes ("), " can be escaped: (\")
```

The java program parses the input program and computes the result for each section in the program. The program outputs an html page with reformatted program sections and their result. When the program has syntax errors, an error message for the first detected error is generated and the rest of the section is skipped.

Create a PHP program that produces exactly the same output as the provided java program. You need to compare the java program output to the “page source” of the PHP program, not to what is displayed by the browser. You do have to emulate exceptions caught by the java program. You do not have to emulate exceptions that are not caught by the java program, like errors in accessing the URLs. In your PHP program, use the PHP constant `PHP_EOL` instead of `\n` for new lines. It should be more portable to different implementations of PHP and operating systems. You can test your PHP program by running it on your computer and comparing its output to the output of the java program.

The instructor created a PHP program solution for this assignment. Although the instructor’s PHP program’s output was compared with the java program’s output, there is always the possibility that the two programs are not totally equivalent. If you find any discrepancies, please describe them to the instructor. We will fix the PHP program solution.

To compare your program's output against the instructor's program output, unzip and place the 4 files included in the program testing .zip file provided and place them in the same folder, accessible from your localhost. In the browser, navigate to that folder and bring up the page *testPrograms.html*. Unless you're on campus, you will need to VPN to UTEP for the comparison program to access the instructor's program.

Turn in:

Submit your program files and your report through blackboard.

In your report, include the answer to these questions:

1. Do you have any special instructions to the one who will test your program? (If yes, explain.)
2. How long did you spend to do this assignment?
3. What problems (if any) did you encounter in this assignment, and if yes, how did you solve the problems?
4. How effective was this assignment at helping you learning PHP?
5. Do you have any suggestion for a similar assignment next time we teach this course?

Due date: Sunday, October 4, 11:59pm.