

Programming Assignment 5

File name: p5

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Files worked on: ast.java, P5.java, typeErrors.gibberish, test.gibberish

How to invoke:

- log into a CS Dept. Linux machine and scp the whole file p5 into a directory in Linux.
- Open p5 in Eclipse or VS code
- Run make and then make test, this will cause a Lexical error to appear.
 - a. Emacs or vim into test.gibberish and delete everything and save the empty file.
 - b. Do the same for typeErrors.gibberish
 - c. Then run make test again there should be no lexical errors showing
 - d. Copy the test.gibberish code from the Eclipse or VS code and paste it into the empty test.gibberish file in the terminal via emacs or vim.
 - e. Do the same for typeErrors.gibberish
 - f. When working properly what should be displayed should be what is shown below:

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[vue@snares-09] (188)$ make test
java -cp ./deps:. P5 test.gibberish test.out
java -cp ./deps:. P5 typeErrors.gibberish testErr.out
23:13 ***ERROR*** Arithmetic operator applied to non-numeric operand
24:10 ***ERROR*** Arithmetic operator applied to non-numeric operand
25:27 ***ERROR*** Logical operator applied to non-bool operand
26:8 ***ERROR*** Arithmetic operator applied to non-numeric operand
27:13 ***ERROR*** Attempt to call a non-function
27:13 ***ERROR*** Arithmetic operator applied to non-numeric operand
28:10 ***ERROR*** Arithmetic operator applied to non-numeric operand
31:9 ***ERROR*** Arithmetic operator applied to non-numeric operand
31:16 ***ERROR*** Arithmetic operator applied to non-numeric operand
32:13 ***ERROR*** Function call with wrong number of args
33:13 ***ERROR*** Function call with wrong number of args
34:14 ***ERROR*** Arithmetic operator applied to non-numeric operand
34:11 ***ERROR*** Return with a value in a void function
39:13 ***ERROR*** Attempt to write a function
40:13 ***ERROR*** Attempt to write a struct name
41:13 ***ERROR*** Attempt to write a struct variable
42:13 ***ERROR*** Attempt to write void
46:12 ***ERROR*** Attempt to read a function
47:12 ***ERROR*** Attempt to read a struct name
48:12 ***ERROR*** Attempt to read a struct variable
52:5 ***ERROR*** Attempt to call a non-function
53:5 ***ERROR*** Attempt to call a non-function
54:5 ***ERROR*** Attempt to call a non-function
55:5 ***ERROR*** Attempt to call a non-function
57:5 ***ERROR*** Function call with wrong number of args
59:11 ***ERROR*** Type of actual does not match type of formal
59:14 ***ERROR*** Type of actual does not match type of formal
60:14 ***ERROR*** Type of actual does not match type of formal
63:19 ***ERROR*** Bad return value
0:0 ***ERROR*** Missing return value
66:21 ***ERROR*** Bad return value
0:0 ***ERROR*** Missing return value
69:19 ***ERROR*** Return with a value in a void function
77:12 ***ERROR*** Arithmetic operator applied to non-numeric operand
78:12 ***ERROR*** Arithmetic operator applied to non-numeric operand
79:12 ***ERROR*** Arithmetic operator applied to non-numeric operand
80:12 ***ERROR*** Arithmetic operator applied to non-numeric operand

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81:5 ***ERROR*** Arithmetic operator applied to non-numeric operand
82:5 ***ERROR*** Arithmetic operator applied to non-numeric operand
92:11 ***ERROR*** Logical operator applied to non-bool operand
93:11 ***ERROR*** Logical operator applied to non-bool operand
94:10 ***ERROR*** Logical operator applied to non-bool operand
95:16 ***ERROR*** Logical operator applied to non-bool operand
96:10 ***ERROR*** Logical operator applied to non-bool operand
97:16 ***ERROR*** Logical operator applied to non-bool operand
106:10 ***ERROR*** Relational operator applied to non-numeric operand
106:15 ***ERROR*** Relational operator applied to non-numeric operand
107:10 ***ERROR*** Relational operator applied to non-numeric operand
107:15 ***ERROR*** Relational operator applied to non-numeric operand
108:10 ***ERROR*** Relational operator applied to non-numeric operand
108:16 ***ERROR*** Relational operator applied to non-numeric operand
109:10 ***ERROR*** Relational operator applied to non-numeric operand
109:16 ***ERROR*** Relational operator applied to non-numeric operand
113:8 ***ERROR*** Non-bool expression used as an if condition
119:11 ***ERROR*** Non-bool expression used as a while condition
127:12 ***ERROR*** Non-integer expression used as a repeat clause
136:5 ***ERROR*** Type mismatch
137:5 ***ERROR*** Type mismatch
138:2 ***ERROR*** Type mismatch
139:5 ***ERROR*** Type mismatch
145:10 ***ERROR*** Equality operator applied to void functions
146:10 ***ERROR*** Equality operator applied to functions
147:10 ***ERROR*** Equality operator applied to struct names
148:10 ***ERROR*** Equality operator applied to struct variables
152:5 ***ERROR*** Function assignment
153:5 ***ERROR*** Struct name assignment
154:5 ***ERROR*** Struct variable assignment

```

- Given that the `typeErrors.gibberish` file will contain instances that trigger errors
 - Cross check the linux output with the `typewErrors.gibberish` comments

Note:

I was unable to figure out why I was receiving the Lexical error so this is what I did to get around the issue.