

Matthew Silva

Professor Hamel

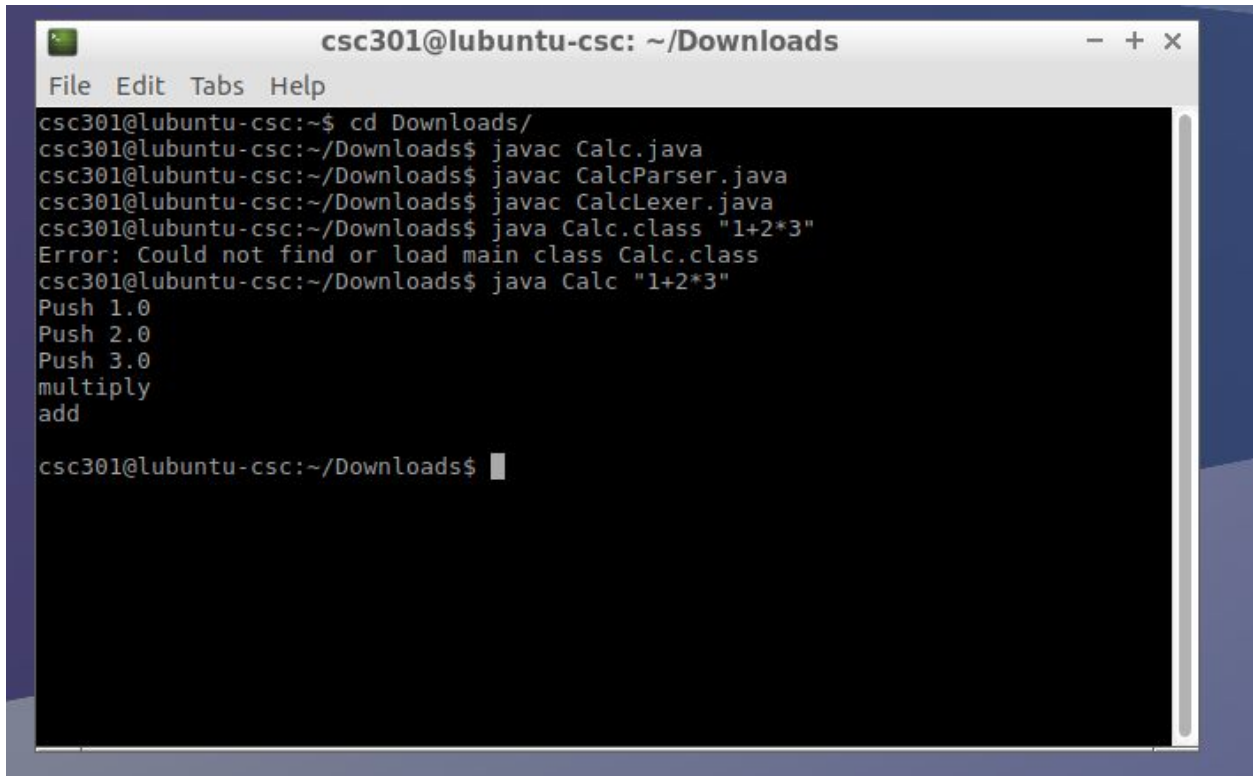
CSC 301

16 November 2017

### Assignment #8

My source code is uploaded as three files in Sakai (Calc.java, CalcParser.java CalcLexer.java).

I also completed the extra credit task of using exceptions to deal with errors. Screenshot examples of this are at the end of this document.



```
csc301@lubuntu-csc: ~/Downloads
File Edit Tabs Help
csc301@lubuntu-csc:~$ cd Downloads/
csc301@lubuntu-csc:~/Downloads$ javac Calc.java
csc301@lubuntu-csc:~/Downloads$ javac CalcParser.java
csc301@lubuntu-csc:~/Downloads$ javac CalcLexer.java
csc301@lubuntu-csc:~/Downloads$ java Calc.class "1+2*3"
Error: Could not find or load main class Calc.class
csc301@lubuntu-csc:~/Downloads$ java Calc "1+2*3"
Push 1.0
Push 2.0
Push 3.0
multiply
add
csc301@lubuntu-csc:~/Downloads$
```

```
csc301@lubuntu-csc: ~/Downloads
File Edit Tabs Help
csc301@lubuntu-csc:~$ cd Downloads/
csc301@lubuntu-csc:~/Downloads$ javac Calc.java
csc301@lubuntu-csc:~/Downloads$ javac CalcParser.java
csc301@lubuntu-csc:~/Downloads$ javac CalcLexer.java
csc301@lubuntu-csc:~/Downloads$ java Calc.class "1+2*3"
Error: Could not find or load main class Calc.class
csc301@lubuntu-csc:~/Downloads$ java Calc "1+2*3"
Push 1.0
Push 2.0
Push 3.0
multiply
add

csc301@lubuntu-csc:~/Downloads$ java Calc "(1+2)*3"
Push 1.0
Push 2.0
add
Push 3.0
multiply

csc301@lubuntu-csc:~/Downloads$
```

```
csc301@lubuntu-csc: ~/Downloads
File Edit Tabs Help
csc301@lubuntu-csc:~/Downloads$ java Calc.class "1+2*3"
Error: Could not find or load main class Calc.class
csc301@lubuntu-csc:~/Downloads$ java Calc "1+2*3"
Push 1.0
Push 2.0
Push 3.0
multiply
add

csc301@lubuntu-csc:~/Downloads$ java Calc "(1+2)*3"
Push 1.0
Push 2.0
add
Push 3.0
multiply

csc301@lubuntu-csc:~/Downloads$ java Calc "3*(1+3)"
Push 3.0
Push 1.0
Push 3.0
add
multiply

csc301@lubuntu-csc:~/Downloads$
```

```
csc301@lubuntu-csc: ~/Downloads
File Edit Tabs Help
csc301@lubuntu-csc:~$ cd Downloads/
csc301@lubuntu-csc:~/Downloads$ java Calc "2+2+2+2+2"
Push 2.0
Push 2.0
add
Push 2.0
add
Push 2.0
add
Push 2.0
add
csc301@lubuntu-csc:~/Downloads$ java Calc "3+(1*(2+2))*5"
Push 3.0
Push 1.0
Push 2.0
Push 2.0
add
multiply
Push 5.0
multiply
add
csc301@lubuntu-csc:~/Downloads$
```

```
csc301@lubuntu-csc: ~/Downloads
File Edit Tabs Help
Push 2.0
add
Push 2.0
add
Push 2.0
add
csc301@lubuntu-csc:~/Downloads$ java Calc "3+(1*(2+2))*5"
Push 3.0
Push 1.0
Push 2.0
Push 2.0
add
multiply
Push 5.0
multiply
add
csc301@lubuntu-csc:~/Downloads$ java Calc "((((1+1))))"
Push 1.0
Push 1.0
add
csc301@lubuntu-csc:~/Downloads$
```

```
csc301@lubuntu-csc: ~/Downloads
File Edit Tabs Help
multiply
add
csc301@lubuntu-csc:~/Downloads$ java Calc "((((1+1))))"
Push 1.0
Push 1.0
add
csc301@lubuntu-csc:~/Downloads$ java Calc "1-(3*(2-1))-1*4+5"
Push 1.0
Push 3.0
Push 2.0
Push 1.0
subtract
multiply
subtract
Push 1.0
Push 4.0
multiply
subtract
Push 5.0
add
csc301@lubuntu-csc:~/Downloads$
```

Exception Examples:

```
csc301@ubuntu-csc: ~/Downloads
File Edit Tabs Help

csc301@ubuntu-csc:~/Downloads$
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csc301@ubuntu-csc:~/Downloads$
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csc301@ubuntu-csc:~/Downloads$
csc301@ubuntu-csc:~/Downloads$
csc301@ubuntu-csc:~/Downloads$
csc301@ubuntu-csc:~/Downloads$
csc301@ubuntu-csc:~/Downloads$
csc301@ubuntu-csc:~/Downloads$
csc301@ubuntu-csc:~/Downloads$ java Calc "1+"
java.lang.NumberFormatException: Expected a number or a parenthesis.
csc301@ubuntu-csc:~/Downloads$ java Calc "1+12aaa"
java.lang.NumberFormatException: For input string: "12aaa"
csc301@ubuntu-csc:~/Downloads$ javac CalcParser.java
```