Lexer.x

1: -- -*- mode: haskell -*-
2:  
3: {  
4: {- Author: Richard Eisenberg  
5:     File: Lexer.x  
6:     Lexer for the Boolean logic language.  
7: -}  
8:  
9: module Lexer where  
10:  
11: %wrapper "basic"  
12:  
13: $upper = A-Z  
14: $lower = a-z  
15: @identifier = [$upper$lower]+  
16:  
17: BL :-  
18:  
19: $white        ;  
20: $true        { \_ -> TRUE  }  
21: "true"        { \_ -> FALSE  }  
22: "false"       { \_ -> VAR s  }  
23: @identifier   { \_ s -> AND }  
24: "&"           { \_ -> OR   }  
25: "|"           { \_ -> NOT  }  
26: "¬"           { \_ -> IMPLIES }  
27: "("           { \_ -> LPAREN }  
28: ")"           { \_ -> RPAREN }  
29:  
30: data Token  
31:   = TRUE  
32:   | FALSE  
33:   | AND  
34:   | OR  
35:   | NOT  
36:   | LPAREN  
37:   | RPAREN  
38:   | IMPLIES  
39:   | VAR String  
40:   deriving Show  
41:  
42: -- lexBL is a friendlier name than alexScanTokens  
43: lexBL :: String -> [Token]  
44: lexBL = alexScanTokens  
45:  
46: )}