

## Faults Detected

	Line number	Method	Fault	Correction	Comments
1	475	main	fname = args[1];	fname = args[0];	Out of bounds
2	32	open_character_stream	<b>if</b> (fname == <b>null</b> )	<b>if</b> (fname == <b>null</b>    fname.equals(""))	A check for empty string
3	52	get_char	<b>int</b> get_char(BufferedReader br){	<b>char</b> get_char(BufferedReader br){	Char must be returned
4	60	get_char	<b>return</b> ch;	<b>return</b> ( <b>char</b> )ch;	ch must be cast to char
5	69	unget_char	unget_char ( <b>int</b> ch,BufferedReader br)	unget_char ( <b>char</b> ch,BufferedReader br)	ch must be char
6	75	unget_char	<b>return</b> 0;	<b>return</b> ch;	Cannot return integers, must return characters
7	88	open_token_stream	<b>if</b> (fname.equals( <b>null</b> ))	<b>if</b> (fname == <b>null</b> )	Use == when comparing null
8	359	is_identifier	<b>int</b> i=1	<b>int</b> i=0	Start count at 0
9	314	is_num_constant	<b>int</b> i=1	<b>int</b> i=0	Start count at 0

10	318	is_num_constant	while ( i <= str.length() && str.charAt(i) != '\0' )	while ( i < str.length() && str.charAt(i) != '\0' )	Out of bounds Error; no charAt(i) for i=str.length()
11	320	is_num_constant	if(Character.isDigit(str.charAt(i+1)))	if(Character.isDigit(str.charAt(i)))	i+1 is out of bounds
11	346	is_str_constant	<b>return true;</b>	<b>return false;</b>	Only return true when there's 2 quotation marks
12	340	is_str_constant	{ <b>while</b> (i < str.length() && str.charAt(i)!='\0')	{ <b>while</b> (i < str.length() && str.charAt(i)!='\0' && str.length() > 1)	Str length must be greater than 1
13	162	get_token	<b>if</b> (id==0 && ch==59)	<i><b>if</b>(id==0    ch==59)</i>	Needs to check not in string or comment
14	186	is_token_end	<b>if</b> (ch=='"'   ch=='\n'    ch == '\r')	<b>if</b> (ch=='"'    ch=='\n'    ch == '\r')	Or needs two
15	274	is_comment	<b>if</b> (ident.charAt(0) == 59)	<b>if</b> (ident.charAt(0) == 47 && ident.charAt(1) == 47)	59 is semicolon and is not a comment
16	370 and 373	is_identifier	<b>return true and return false</b>	<b>return true should be return false and vice-versa</b>	Reverse the booleans

1 7	394	Print_spec_sym bol	if (str.equals("{}"))	if (str.equals("("))	Lparen wrong