Faults & Corrections from static analysis of the code

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1) On **line 80** in the if statement, we should not be checking if fname equals to null, so simply remove it and only check empty string.
2) On **line 81** where we are calling the open_character_stream method and assigning it to a Buffered Reader instance. It is wrong to pass null because here we want out program to split into two directions one for a valid filename and the other for a case where filename is empty, and the user provides input of tokens to the console. Instead, we should be checking if that value passed is simply an empty string -> ""
3) On **line 24**, similar to the previous faults we should be checking if the file was never passed not that the actual file is null.
4) On **line 292**, where str.length() > 2. We should be checking if str length is equal to 2, hence str.length() ==2.
5) On **line 118** and **line 119,** the id's here should not be 2 for string and 1 for comment. The correction is the other way around, 1 for string and 2 for comment.
6) On **line 338,** the fault is that we are returning true after we've checked the condition that the string ends with a string quotes. The correction is to return false after we break out of the while loop.
7) On **line 362**, we are returning false instead of returning true after the condition in the while loop is satisfied. We aren't returning true in the while loop this time, because we are incrementing i in case the user types something like aaaa which still qualifies as an identifier. The correction is to simply return true here, and same on **line 365** in the else we must return false for any other condition.
8) On **line 461,** the value of fname should not be new String, but technically should be null so I am not sure why there should be code in that section. The proposed solution I had was to change fname == "". s
9) Also, on **line 378,** small fault in the if statement checking for right parentheseis). Here, the correction is we should be checking for the left parentheseis (.
10) On line **450,** the if statement in the is_spec_symbol method should be false for "/", not true.

Slight Corrections

1) On **line 17**, it is unnecessary to check if the function's return value is true. Same for **line 140, line 190.**
2) **Line 128**, instead of checking is is_token_end == false we simply say while !is_token_end
3) Added missing **lie 418**, checking for slash.
4) When I was testing is_num_const, I noticed that it would not work for double digit numbers. To test that I adjusted **line 306** and set i = 3, to allow for triple digit numbers.
5) Indented **lines 318**, and **lines 321.** I found out about this when I was testing that function is_num_const with a number and character like "3a". It would pass true when it should pass

false and that is how I knew there was a problem in the function. Took me a very long time to figure out.