## Explanation A

The method *parseSQL(query)* returns an SQL expression parsed for a given *query.*

In line 4, the code obtains the SQL *keyword* of the expression returned by *parseSQL(query).*
The assertion in line 6 checks if *keyward* has the same value as the variable *expected.*

Internally, in line 11, the method computes the value of *keyword* as a function of the input *query.*
However,
1. In V1, if the value of *keyword* is equal to “select” (line 12), the variable is reassigned to its uppercase version, i.e., *“SELECT”* (line 13).
2. In V2, lines 12 and 13 are deleted and, thus, *keyword* is not reassigned to its uppercase version.

Then, in both versions,
the variable *keyword* is appended to the variable *expr* (line 14). Next, *expr* is further appended with *function*, *table*, and *predicate* in lines 16, 18, and 20, respectively.
In summary, the deletion of lines 12-13 leads to the difference in the value of *keyword* in V1 and V2.

This difference causes the assertion to fail.

## Explanation B

The method *parseSQL(query)* returns an SQL expression parsed for a given *query.*
The input *query* is initialized in line 2 as “select sum(c1) from sales where c2>1”.
In line 4, the code obtains the SQL *keyword* of the expression returned by *parseSQL(query).*
The assertion in line 6 checks if *keyward* has the same value as the variable *expected,*
which is set in line 5 to be “SELECT”.
Internally, in line 11, the method computes the value of *keyword* as a function of the input *query.*
However,
1. In V1, if the value of *keyword* is equal to “select” (line 12), the variable is reassigned to its uppercase version, i.e., *“SELECT”* (line 13).
2. In V2, lines 12 and 13 are deleted and, thus, *keyword* is not reassigned to its uppercase version.

Then, in both versions,
the variable *expr* is computed as a function of both *keyword* and *query* (line 20).

In summary, the deletion of lines 12-13 leads to the difference in the value of *keyword* in V1 and V2,
for queries with *keyword* = “select”.
This difference causes the assertion to fail.

## Explanation C

The method *parseSQL(query)* returns an SQL expression parsed for a given *query.*

In line 4, the code obtains the SQL *keyword* of the expression returned by *parseSQL(query).*
The assertion in line 6 checks if *keyward* has the same value as the variable *expected.*

Internally, in line 11, the method computes the value of *keyword* as a function of the input *query.*
However,
1. In V1, if the value of *keyword* is equal to “select” (line 12), the variable is reassigned to its uppercase version, i.e., *“SELECT”* (line 13).
2. In V2, lines 12 and 13 are deleted and, thus, *keyword* is not reassigned to its uppercase version.

Then, in both versions,
the variable *expr* is computed as a function of both *keyword* and *query* (line 20).

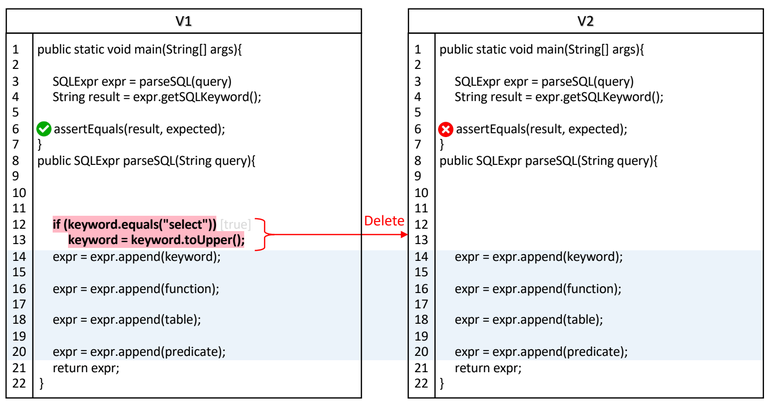
In summary, the deletion of lines 12-13 leads to the difference in the value of *keyword* in V1 and V2.

This difference causes the assertion to fail.

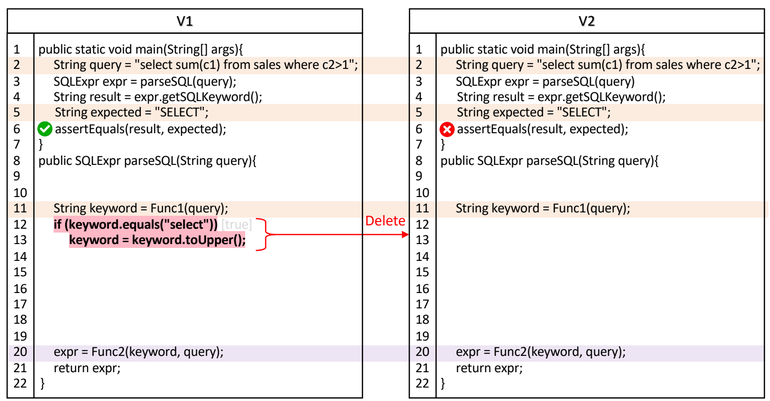
Notations: Colored backgrounds highlight the differences between the views.

FYI: Views are given below again, for your reference.

## View A




## View B




## View C