```
1 grammar CSVAG;
 2
 3 @header {
 4 package ag;
 5 import java.util.*;
 6 }
8 file
9 locals [int i = 0]
       : hdr ( rows += row[$hdr.text.split(",")] { $i++; })+ {
10
               System.out.println("Totally " + $i + " rows");
11
12
               for (RowContext r : $rows) {
                   System.out.println("Row token interval : " + r.
13
   getSourceInterval());
14
               }
15
           }
16
       ;
17
18 hdr : row[null] {
           System.out.println("header: " + $text.trim());
19
20
       };
21
22 row[String[] columns] returns [Map<String, String> values]
23 locals [int col = 0]
24 @init {
25
       $values = new LinkedHashMap<>();
26 }
27 @after {
28
       if ($values.size() > 0) {
29
           System.out.println("values = " + $values);
30
       }
31 }
32
       : field {
33
           if ($columns != null) {
               $values.put($columns[$col++].trim(), $field.text.trim());
34
35
           }
       } (',' field
36
37
38
               if ($columns != null) {
39
                   $values.put($columns[$col++].trim(), $field.text.trim
   ());
40
               }
41
       )* '\r'? '\n'
42
43
44
45 field : ID | NUMBER ;
46
47 ID : [a-z]+ ;
48 NUMBER : [0-9]+;
49 WS : [ \t]+ -> skip;
```