```
1 // Comma-Separated Values
 2 grammar CSVAG;
3
4 @header {
5 package ag;
 6 import java.util.*;
7 }
8
9 file
10 locals [int i = 0]
11
   : hdr
12
       { System.out.println("header: " + $hdr.text); }
13
       (rs += row[$hdr.text.split(",")] { $i++; System.out.println($row.
  vals); } )+
14
       { System.out.println("Totally " + $i + " rows");
         for (RowContext r : $rs) {
15
16
           System.out.println("Row token interval: " + r.
   getSourceInterval());
17
        }
       };
18
19 hdr : row[null] ;
20 row[String[] columns] returns [Map<String, String> vals = new HashMap<
  String, String>()]
    locals [int col = 0]
21
22
       : field { if ($columns != null) $vals.put(columns[$col++], $field.
  text); }
23
         (',' field { if ($columns != null) $vals.put(columns[$col++],
   $field.text); } )*;
24
25 field : ID | NUMBER ;
26
27 ID : [a-z]+;
28 NUMBER: [0-9]+;
29 WS : [ \t r\n] + -> skip;
```