

# Lexer rules

- `name` : `...` ; : rule definition
- `(...)` : grouping
  - `|` : alternative, e.g. `(a|b)`
  - `'s'` : char or string literal. `'\n'` for newline.
  - `.` : any character
- `a .. b` : range, e.g. `('0'..'9')`
- `{...}` : action
  - `+` : 1 or more, e.g. `('0' .. '9')+`
  - `*` : 0 or more
  - `?` : optional (or semantic predicate)
- `[...]` : choice between characters, e.g. `[abc]`
  - `~` : match not, e.g. `~[abc]`
- `// ...` : single-line comment
- `/* ... */` : multi-line comment

# Parser rules

```
parser grammar explParser;  
  
// extern tokens definition  
options {tokenVocab=explLexer;}  
  
// Parsing rules: structure tokens together  
prog : (anbn | cndn) EOF ;  
// EOF: end-of-file token (predefined)  
  
anbn : A anbn B  
      | /* nothing for empty alternative */ ;  
  
cndn : 'C' cndn 'D' | ;  
  
// Compile with:  
// antlr4 explLexer.g4 ; explParser.g4  
// javac *.java  
// echo 'aabb' | grun expl prog -gui
```