

```
ebnf = { production } .
production = identifier "=" expression "." .
expression = term { " | " term } .
term = factor { factor } .
factor = identifier | string | "(" expression ")" |
         "[" expression "]" | "{" expression "}" .
string = """ printableCharacter { printableCharacter }""" .
printableCharacters = "a" | ... | "!" .
identifier = "ebnf" | "production" | ... | "identifier .
```

The Scanner

The problem statement:

Given a specification of valid symbols where symbols may consist of multiple characters...

...Is a given input (source code) in this specification, or in other words do the characters in the source file form valid symbols according to the specification?

EBNF-Niklaus Wirth

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term = factor { factor } .
factor = identifier | string | "(" expression ")" |
         "[" expression "]" | "{" expression "}" .
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printableCharacters = "a" | ... | "!" .
identifier = "ebnf" | "production" | ... | "identifier .
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