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## 1 Regular Grammar for CUTE Lang

This chapter explains what regular grammar is used in CUTE Lang.

### 1.1 EBNF

To explain without any complexity, grammar is explained by EBNF (Extended BNF).

#### EBNF for Regular Grammar

```
program                = { whites | lexeme } .

whites                 = white .
white                  = whitechar | comment .

whitechar              = newline | vtab | tab | space .
newline                = cr lf | cr | lf | ff .
cr                     = "\r" .
lf                     = "\n" .
ff                     = "\f" .
vtab                   = "\v" .
tab                    = "\t" .
space                  = " " .

comment                = sl com | ml com .
sl com                  = sl beg, { sl any }, [ newline ] .
sl beg                  = "//" .
sl any                  = printable | space | tab .
ml com                  = ml beg, ml anys, { ml com, ml anys }, ml end .
ml beg                  = "/*" .
ml end                  = "*/" .
ml anys                 = { ml any }
                        - ( { ml any } ( ml beg | ml end ) { ml any } ) .
ml any                  = printable | whitechar .

lexeme                  = id | sym | type literal | value literal
                        | special | res sym | res id .
type literal            = simple type | wrapper type literal .
value literal           = integer | float | char | string .
special                 = "{" | "}" | "," | ";" | "[" | "]" | "(" | ")" .
```