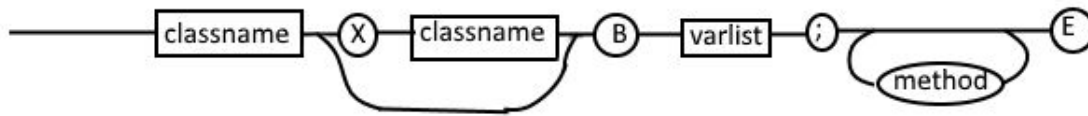


# Syntax Diagrams

Beomjin Han  
Prof. Chidella  
Assignment 1

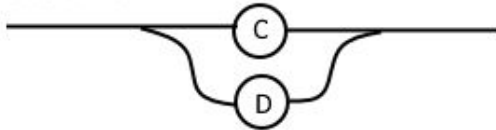
$\langle \text{javaclass} \rangle ::= \langle \text{classname} \rangle [X \langle \text{classname} \rangle] B \langle \text{varlist} \rangle ; \{ \langle \text{method} \rangle \} E$

javaclass



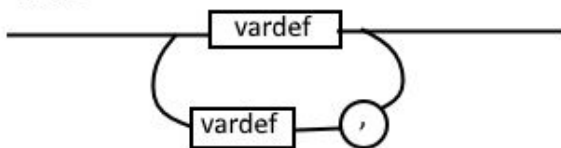
$\langle \text{classname} \rangle ::= C | D$

classname



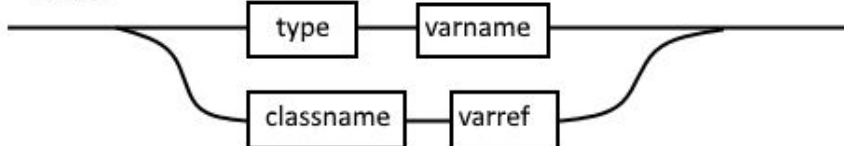
$\langle \text{varlist} \rangle ::= \langle \text{vardef} \rangle \{ , \langle \text{vardef} \rangle \}$

varlist



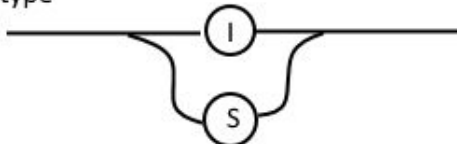
$\langle \text{vardef} \rangle ::= \langle \text{type} \rangle \langle \text{varname} \rangle | \langle \text{classname} \rangle \langle \text{varref} \rangle$

vardef



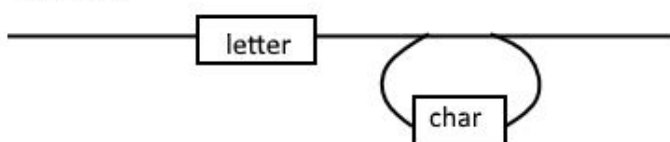
$\langle \text{type} \rangle ::= I | S$

type

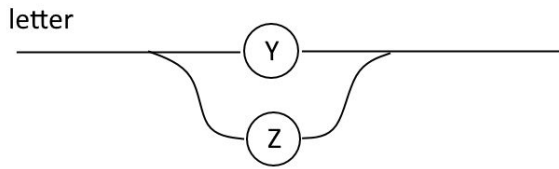


$\langle \text{varname} \rangle ::= \langle \text{letter} \rangle \{ \langle \text{char} \rangle \}$

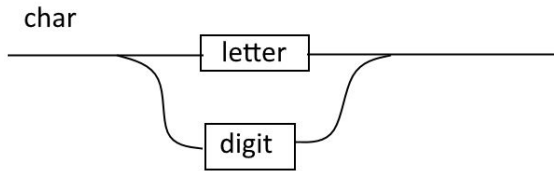
varname



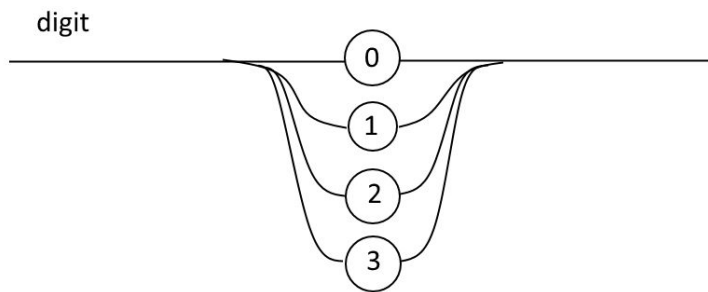
<letter> ::= Y|Z



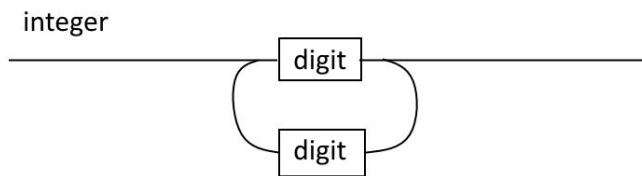
<char> ::= <letter> | <digit>



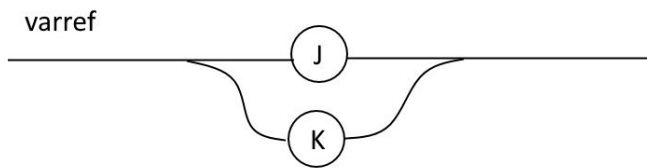
<digit> ::= 0|1|2|3



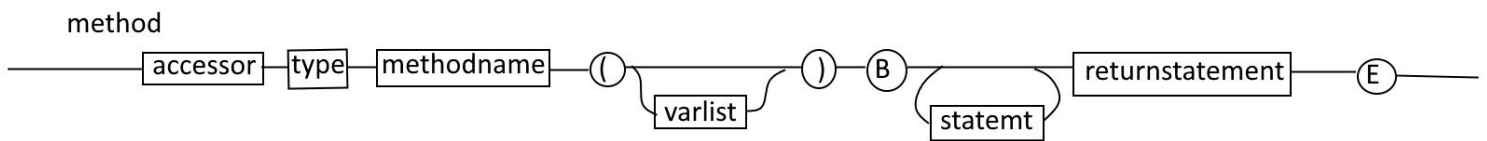
<integer> ::= <digit> {<digit>}



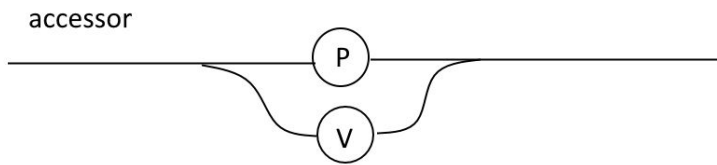
<varref> ::= J|K



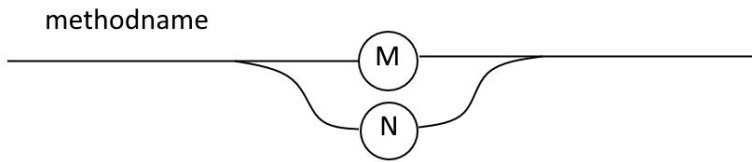
<method> ::= <accessor> <type> <methodname> ([<varlist>]) B {<statemt>} <returnstatement> E



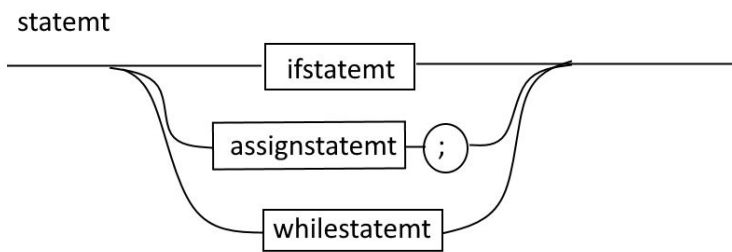
<accessor> ::= P | V



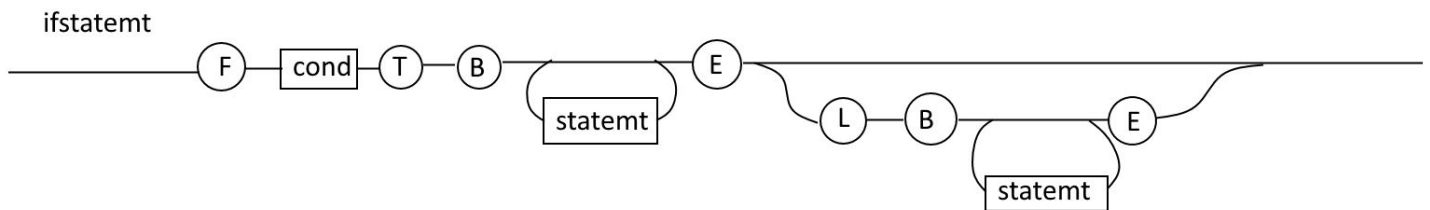
<methodname> ::= M | N



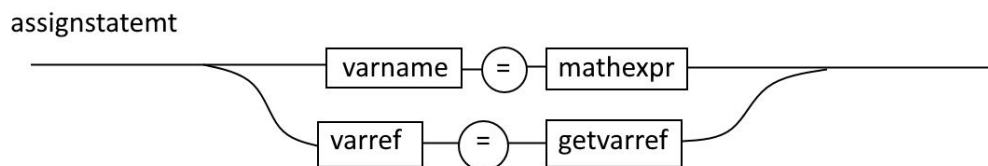
<statemt> ::= <ifstatemt> | <assignstatemt>; | <whilestatemt>



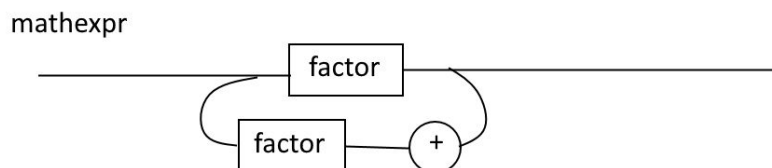
<ifstatemt> ::= F <cond> T B {<statemt>} E [ L B {<statemt>} E ]



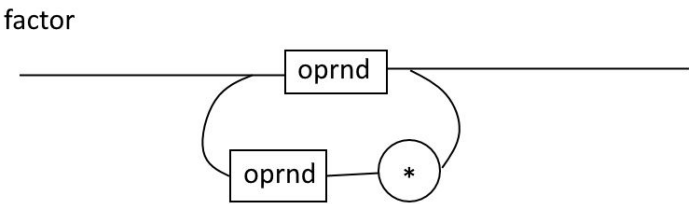
<assignstatemt> ::= <varname> = <mathexpr> | <varref> = <getvarref>



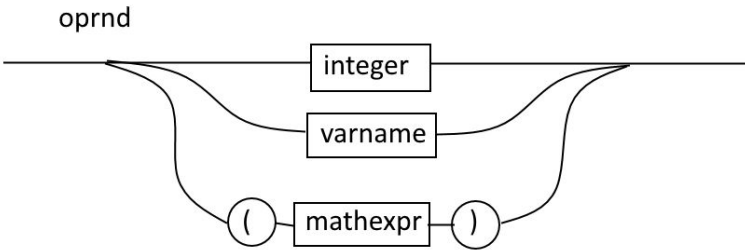
<mathexpr> ::= <factor> {+ factor}



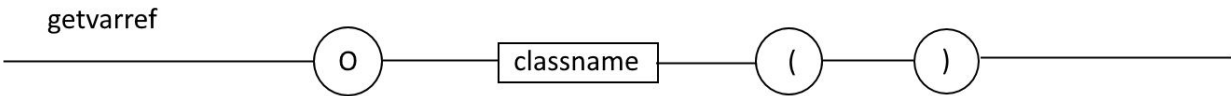
<factor> ::= <oprnd> { \* oprnd }



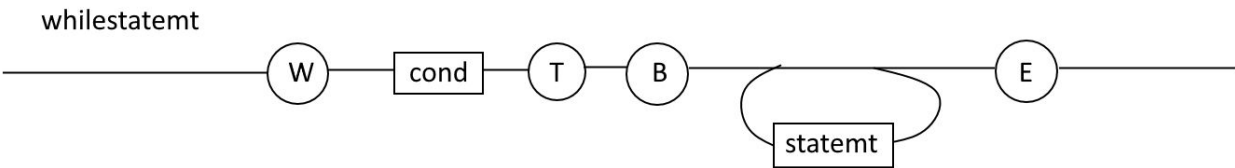
<oprnd> ::= <integer> | <varname> | ( <mathexpr> )



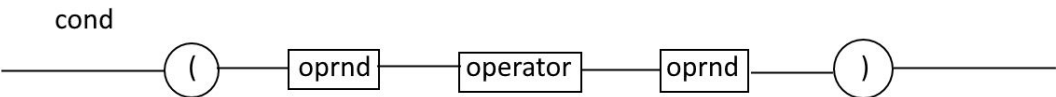
<getvarref> ::= O <classname> ( )



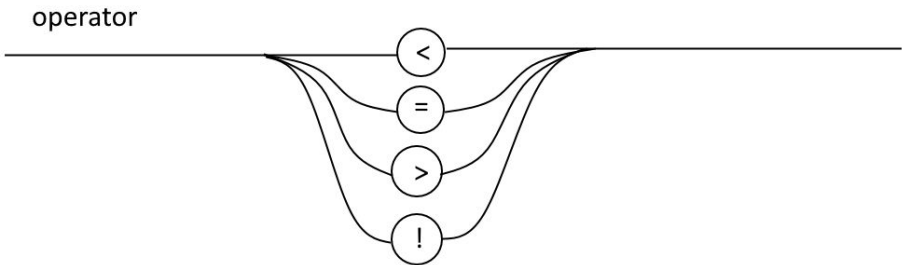
<whilestatemt> ::= W <cond> T B { <statemt> } E



<cond> ::= ( <oprnd> <operator> <oprnd> )



<operator> ::= < | = | > | !



<returnstatemt> ::= R <varname> ;

