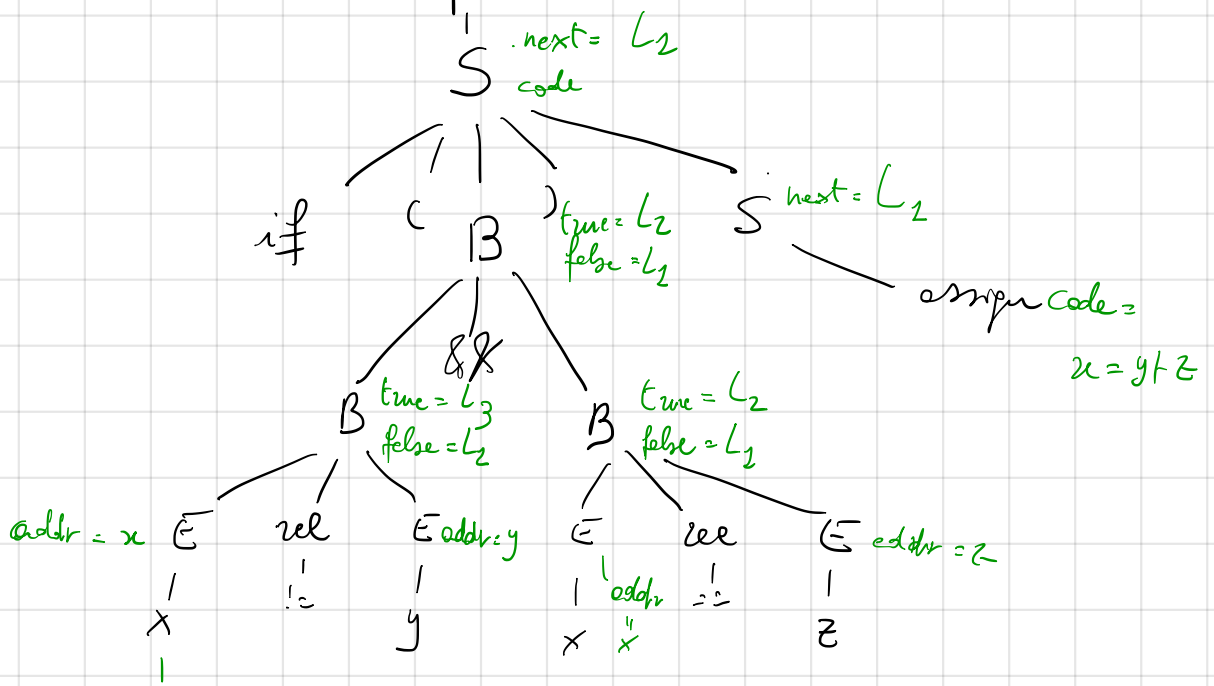


if (x != y && x == z) x = y + z;



if x != y goto L3
goto L1

L3: if x == z goto L2
goto L1

L2: x = y + z

L1:

if(x != y && x == z) x = y + z;

$P \rightarrow B \quad \{P.s = B.s\} \quad \{B.n = 0\}$
 $B \rightarrow \underline{\text{begin}} D; C R \underline{\text{end}} \quad \{B.s = D.s + \max(C.s, R.s)\}$
 $R \rightarrow ; C R_1 \quad \{R.s = \max(C.s, R_1.s)\}$
 $R \rightarrow \epsilon \quad \{R.s = 0\}$
 $C \rightarrow B \quad \{C.s = B.s\} \quad \{B.n = C.n\}$
 $C \rightarrow \underline{S} \quad \{C.s = 0\} \quad \{S.n = C.n\}$
 $D \rightarrow \underline{\text{var}} \underline{\text{id}} L : T \quad \{D.s = T.s * (L.c + 1)\}$
 $L \rightarrow , \underline{\text{id}} L_1 \quad \{L.c = L_1.c + 1\}$
 $L \rightarrow \epsilon \quad \{L.c = 0\}$
 $T \rightarrow \underline{\text{int}} \quad \{T.s = 2\}$
 $T \rightarrow \underline{\text{real}} \quad \{T.s = 4\}$

$C.n = B.n + 1$
 $R.n = B.n + 2$
 $C.n = R.n$
 $R_1.n = R.n$

Attributes
 $\overset{\text{synth}}{\underline{s}}$ for space needed B, P, R, C, D, T
 $\overset{\text{synth}}{\underline{m}}$ for level of nesting $S, C, B, R,$
 inherited
 $\overset{\text{synth}}{\underline{c}}$ counts the number of ids in L

real

rec

$i: \underline{\text{real}},$

$j: \underline{\text{rec}}$

$k: \underline{\text{integer}},$

$l: \underline{\text{real}}$

endrec,

$m: \underline{\text{integer}}$

endrec

$T \rightarrow \underline{\text{real}}$

$T \rightarrow \underline{\text{integer}}$

$T \rightarrow \underline{\text{rec}} \underline{\text{id}} : T \ L \ \underline{\text{endrec}}$

$L \rightarrow , \underline{\text{id}} : T \ L$

$L \rightarrow \epsilon$