

### ALGO 3

#### Algorithm 3: Calculating Variable Similarity

Input: the list of data flow nodes corresponding to the abstract implementation diagram

Output: Variable similarity VarSim

```
1: Function createnode (CodeNodeA,CodeNodeB)
2: for (int i = 0; i < CodeNodeA.length; i++)
3: tokenStringA←getNodeValue (CodeNodeAi);
4: SymbolListA←getNodeTypes (CodeNodeAi);
5: tokenStringB←getNodeValue (CodeNodeBi);
6: SymbolListB←getNodeTypes (CodeNodeBi);
7: end for
8: varSeqA← getVarLoc (tokenStringA,SymbolListA);
9: varSeqB←getVarLoc (tokenStringB, SymbolListB);
10: sim←0;
11: nosim←0;
12: for (int var = 0; var < varSeqA.size; var++)
13: if (varSeqAvar equals varSeqBvar)
14: sim++;
15: end if
16: endfor
17: varSim←sim*2/(CodeNodeA.length+CodeNodeB.length);
18: return varSim
19: end function
```