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831/2

Lab 4

G = (N,Σ,P,S)

N = {IS , DEC , T1 , ARR , T , C , SL , S , SS , AS , E , TM , F , IO , STS , IF , WHILE , FOR , COND , REL}

Σ = { + , - , \* , / , = , < , <= , == , >= , > ,[ , ] , { , } , ( , ) , ; , array , of , type , bool , char , int , double , read , write , if , then , while , do , for , to, space }

S = DEC

P:

DEC -> T space IS

IS -> ID | ID , IS

T1 -> bool | char | int | double

ARR -> ARRAY [ no ] OF T1

T -> T1 | ARR

C -> { SL }

SL -> S | S ; SL

S -> SS | STS

SS -> AS | IO

AS -> ID = E

E -> E + TM | E - TM

TM -> TM \* F | TM / F

F -> ( E ) | ID

IO -> read ( ID ) | write ( ID )

STS -> C | IF | WHILE | FOR

IF -> if COND then S

WHILE -> while COND do S

FOR -> for AS to no do S | for AS to ID do S

COND -> E REL E

REL -> < | <= | == | != | >= | >

The set N contains all the non-terminal symbols. And the set Σ contains all the terminal symbols of my mini language.