Tiny CFG

1. *Program → FunctionStatements MainFunction*
2. *MainFunction → DataType* **main ()** *FunctionBody*
3. *FunctionStatements → FunctionStatement Functions* |**ε**
4. *Functions → FunctionStatement Functions* |**ε**
5. *FunctionDeclartion → DataType* **identifer (***Paramter Paramters***)**
6. *Paramter → DataType* **Identifier**|**ε**
7. *Paramters →* **,** *DataType* **Identifier** *Paramters* | **ε**
8. *FunctionBody →* **{** *Statements ReturnStatement* **}**
9. *FunctionStatement → FunctionDeclartion FunctionBody*
10. *Statements → Statement State*
11. *State → Statement State* | **ε**
12. *Statement ->* **comment**

| *IfStatement*

| *ReadStatement*

| *WriteStatement*

| *RepeatStatement*

| *DeclarationStatement*

| *AssignmentStatement***;**

| *FunctionCall***;**

| **ε**

1. *DeclarationStatement → DataType VarsDeclartion***;**
2. *VarsDeclartion → VarDeclation Declartions*
3. *VarDeclation → identifier* | *AssignmentStatement*
4. *Declartions →* **,***VarDeclation Declartions* | ***ε***
5. *AssignmentStatement* → **identifier** := *Expression*
6. *Expression →* **string** | *Term* | *Equation*
7. *Equation → SubEquation SubEquations*
8. *SubEquations → AddOp SubEquation SubEquations* |**ε**
9. *SubEquation → Equ E*
10. *E → MultOp Equ E* |**ε**
11. *Equ → EquationWith* | *EquationWithout*
12. *EquationWithout → Oprand Equations*
13. *EquationWith* → **(***Oprand Equations***)**
14. *Equations → AddOp Oprand Equations* |**ε**
15. *Oprand → Term Ter*
16. *Ter → MultOp Term Ter* |**ε**
17. *Term →* **number** | **idetifier** | *FunctionCall* | *Equation*
18. *FunctionCall →* **identifier (***arg args***)**
19. *arg →* **identifier** | **ε**
20. *args →* **, identifier** *args* | **ε**
21. *WriteStatement →* **write** *(Expression*|**endl***)***;**
22. *ReadStatement →* **read** *identifier***;**
23. *ReturnStatement →* **return** *Expression***;**
24. *Condition →* **identifier** *ConOp term*
25. *ConditionStatement → condition Conds*
26. *Conds → Boolop Condition Conds* | *ε*
27. *RepeatStatement →* **repeat** *Statements* **until** *ConditionStatement*
28. *DataType →* **int** | **float** | **string**
29. *IfStatement →* **if** *ConditionStatement* **then** *Statements ElseIfStatements ElseStatement* **end**
30. *ElseIfStatements → ElseIfStatement ElseIfs*
31. *ElseIfs → ElseIfStatement ElseIfs* | **ε**
32. *ElseIfStatement →* **elseif** *ConditionStatement* **then** *Statements* | **ε**
33. *ElseStatement →* **else** *Statements* | **ε**
34. *ConOp →* **=** | **<>** | **>** | **<**
35. *BoolOp →* **||** | **&&**
36. *AddOp →* **+** | **-**
37. *MultOp →* **\*** | **/**