Program 4 CFG

1. Program -> int main ( ) compound_stmt
2. compound_stmt -> { Decl Stmt } | { Stmt }
3. Stmt -> E ; | AssignExpr | compound_stmt | selection_stmt | iteration_stmt | jump_stmt
4. selection_stmt -> if(cond) compound_stmt | if(cond) compound_stmt else compound_stmt
5. iteration_stmt -> while (cond) compound_stmt | for (E ; cond ; E) compound_stmt
6. jump_stmt -> continue ; | break ; | return E ;
7. cond -> expr | expr logOp expr
8. expr -> relexp | logexp | E
9. relexp -> E relOp E
10. logexp -> E logOp E
11. logOp -> || | &&
12. relOp -> < | > | <= | >= | != | ==
13. Decl -> Type VarList; | Type AssignExpr
14. Type -> int | void | char
15. VarList -> VarList, id | id
16. AssignExpr -> id = E, AssignExpr | id = E;
17. E -> E + T | E - T | T
18. T -> T * F | T / F | F
19. F -> id | num |(E) | UnaryExpr | Unary_operation
20. Unary_operation -> id u_op id | id u_op num | id u_op (E)
21. u_op -> += | -= | *= | /=
22. UnaryExpr -> ++ id | id++ | --id | id--