**PRACTICAL # 09**

**OBJECT:**

CFG for declaration and initialization statements.

**THEORY:**

Syntax structures of a programming language cannot be recognized by DFA. Context Free Grammar can be used to validate syntax structure of a language.

**Program:**

//Declaration and Initialization Statement

*<dec\_stat> -> DT ID <init\_stat> <dec\_statP>*

*<dec\_statP> -> ; | , ID <init\_stat> <dec\_statP>*

*<init\_stat> -> = <init\_statP> | ε*

*<init\_statP> -> ID | <const> | <Exp> <List>*

*<const> -> Int\_Const | Float\_Const*

**ACTIVITIES**

**Activity 1**

Define declaration and initialization statements CFG for your own language.

**REVIEW QUESTIONS**

1. What is declaration statement?
2. What is initialization statement?
3. Can one statement have both uninitialized and initialized variables ?