

ASSIGNMENT

Due Date : 10.01.2022

Context Free Grammar

Your assignment is to solve the parsing problem that check whether a given string belongs to the language given by any Context Free Grammar G_1 . Generate the parse tree for any input string on given Context Free Grammar G_1 (should be read from CFG.txt file) by the user. Input string should be given by the user.

You should show parse tree and derivation of string in grammar G_1 on the screen. Your implementation also should give that whether input string belongs to the language G_1 .

You can implement your solution in C# or java.

Report include:

- Description
- Psedeu code
- Parsing tree (represent step by step for one sample string)
- Derivation (represent step by step for one sample string)
- Screenshots of the program for any input string(step by step)

In upload folder(studentnumber1_studentnumber2):

- Program code
- Report

Note: Assignment will be done as a group of 2 people.

CFG.txt (# is used for ϵ)

$E \rightarrow E+T \mid T$

$T \rightarrow F \mid T * F$

$F \rightarrow (E) \mid a$