

Lab 2 - Parser

Course: Principles of Programming Languages (Code: IT092IU)

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1 Example

Use ANTLR to write parser rules in `"*.g4"` to accept the expressions that are integers or identifiers.

2 Exercises

Use ANTLR to write parser rules in `"*.g4"` to accept the following statements:

Exercise 1:

The plus operation of two integers, for example, $a + b$. The calculating must be performed from left to right.

Exercise 2:

The plus and minus operations of two integers, for example, $a + b$ and $a - b$. The calculating must be performed from left to right.

Exercise 3:

The four basic arithmetic operations: plus, minus, multiple, and divide operations of two integers. For example, $a + b$, $a - b$, $a * b$, and a / b . The operator `"*"` and `"/"` have higher priority than `"+"` and `"-"`. The calculating must be performed from left to right in case operators have the same priority.

Exercise 4:

Build the expression can recognize the input string: `"(2 + a) * 7"`.