

Lab 6 - Abstract Syntax Tree

Course: Principles of Programming Languages (Code: IT092IU)

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Write code in “ASTGeneration.py” to parse AST trees with the following grammars.

Exercise 1

```
program: (expression)*;
expression: Integer | Identifier;
Integer: [0-9]+ ;
Identifier: [a-z]+ ;
```

Exercise 2

```
program:( expression )*;
expression: expression “+” term | term;
term: Integer | Identifier;
Integer: [0-9]+ ;
Identifier: [a-z]+ ;
```

Exercise 3

```
program: (expression )*;
expression: expression (Add | Sub) factor | factor;
factor: factor (Mul | Div) term | term;
Add : '+';
Sub : '-';
Mul : '*';
Div : '/';
term: Integer | Identifier;
Integer: [0-9]+ ;
Identifier: [a-z]+ ;
```