**Write code in ‘ASTGeneration.py’ to parse AST trees with following grammars.**

**Example 1:**

program

: ( expression )\* EOF

;

expression

: Integer

| Identifier

;

Integer: [0-9]+ ;

Identifier: [a-z]+ ;

**Example 2:**

program

: ( expression )\* EOF

;

expression

: expression '+' term

| term

;

term

: Integer

| Identifier

;

**Exercise 1:**

program

: ( expression )\* EOF

;

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]+ ;

**Exercise 2:**

program

: ( statement )\* EOF

;

statement

: (IntType | FloatType) Identifier (',' Identifier)\* ';'

;

IntType: 'int';

FloatType: 'float';

Identifier: [a-z]+ ;