

Câu hỏi 6

Không hoàn thành

Chấm điểm của 1,00

Given the grammar of MP as follows:

```
program: exp EOF;
exp: (term ASSIGN)* term;
term: factor COMPARE factor | factor;
factor: operand (ANDOR operand)*;
operand: ID | INTLIT | BOOLIT | '(' exp ')';
INTLIT: [0-9]+ ;
BOOLIT: 'True' | 'False' ;
ANDOR: 'and' | 'or' ;
ASSIGN: '+=' | '-=' | '&=' | '!=' | ':=' ;
COMPARE: '=' | '<' | '>' | '<=' | '>=' ;
ID: [a-z]+ ;
```

and AST classes as follows:

```
class Expr(ABC):
class Binary(Expr): #op:string;left:Expr;right:Expr
class Id(Expr): #value:string
class IntLiteral(Expr): #value:int
class BooleanLiteral(Expr): #value:boolean
```

Please copy the following class into your answer and modify the bodies of its methods to generate the AST of a MP input?

```
class ASTGeneration(MPVisitor):
    def visitProgram(self,ctx:MPParser.ProgramContext):
        return None
    def visitExp(self,ctx:MPParser.ExpContext):
        return None
    def visitTerm(self,ctx:MPParser.TermContext):
        return None
    def visitFactor(self,ctx:MPParser.FactorContext):
        return None
    def visitOperand(self,ctx:MPParser.OperandContext):
        return None
```

For example:

Test	Result
"a := b := 4"	Binary(:=, Id(a), Binary(:=, Id(b), IntLiteral(4)))

Answer: (penalty regime: 10, 20, ... %)

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Kiểm tra

◀ Quiz: AST (6/7/2022, 8g30)

Chuyển tới...

MiniTest: AST Generation ▶

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