

# L Grammar

C

February 9, 2024

## 1 Introduction

$$\begin{aligned} [\text{Prog}] &\rightarrow [\text{Stmt}]^* \\ [\text{Stmt}] &\rightarrow \begin{cases} \text{return} & [\text{Expr}] \\ \text{let } \textit{ident} & [\text{OptAssign}] \\ \textit{ident} = & [\text{Expr}] \end{cases} \\ [\text{OptAssign}] &\rightarrow \begin{cases} = [\text{Expr}] \\ [ \ ] \end{cases} \\ [\text{Expr}] &\rightarrow \begin{cases} [\text{Term}] \\ [\text{BinExpr}] \end{cases} \\ [\text{Term}] &\rightarrow \begin{cases} \textit{IntLit} \\ \textit{ident} \\ ([\text{Expr}]) \end{cases} \\ [\text{BinExpr}] &\rightarrow \begin{cases} [\text{Expr}] + [\text{Expr}] \\ [\text{Expr}] - [\text{Expr}] \\ [\text{Expr}] * [\text{Expr}] \\ [\text{Expr}] / [\text{Expr}] \end{cases} \end{aligned}$$