# CSE 341 HW 3

## Evaluation Strategy

After building the parse tree from given tokens, the evaluation starts from the main scope and every needed argument gets evaluated when needed. Functions are stored as a variable with identifier list and its statements (both are nodes of the parse tree).

## Scope

The scope is a stack of variable lists, each list representing the scope layers. Function calls and loops add a layer to the stack at start and remove the added layer at the end. For loops and calls insert their variables in their latest inserted layer.

## Type Checking

Every valid expression returns typed data. Most of the expressions try to cast the given parameters to their needed type. Data types are fractions, integers, booleans, lists, strings, and functions.