

Post-Mortem

CS135 Winter 2024, Assignment 7

Question 2

Part a:

- Some students used 'x, 'y, and 'z instead of `Sym` when modifying the data definition.
- Some students used `Identifier` instead of `Sym` without writing a data definition for an `Identifier`.

Part b

- Many students forgot to write a second, mutual template for `OpNode` (as there are two data definitions, `AExp` and `OpNode`, which are mutual).
- Many students forgot to write a contract for `OpNode` (most likely if you forgot to write an `opnode-template`). Some students who did write an `opnode-template` contract had an incorrect contract based on how they wrote their `opnode-template`.
 - For instance, if `opnode-template` consumed one argument (such as an `OpNode`), then the contract should consume one argument. For `opnode-template` that consumes two arguments (such as the operator and arguments of an `OpNode`), your contract should have 2 consumed data types.
- Some students assumed the application based on the question in a conditional statement.
 - For instance, some students checked specifically for the symbol of the operator (which is fine), but you cannot assume that you must use the functions `+` or `*` as an application.
- Many students had incorrect base case answers. Specifically, the base cases should only contain a set of ellipses, not necessarily the argument.
- Some students neglected that if `AExp` is a symbol, it does not only need to be 'x, 'y, or 'z (it can be other symbols). On the other hand, the operator of an `OpNode` can only be '+' or '*', not any symbol.
- Although no marks were deducted, it is the best practice to name your template `X-template` if you are writing a template based on the data definition for `X`. Specifically, using the name `opnode-template` is the most appropriate name for a template that consumes an `OpNode`.

Part c

- Many students used `Symbol Table` as a data type in their contracts (commonly named `SymTable`, `AL`, `SymbolTable`), but neglected to write a data definition for it.
- Many students wrote `(listof Sym Num)` for the elements inside the `Symbol Table`, but the symbol-number pairs should have been represented using `(list Sym Num)`.
- Some students incorrectly assumed that the `Symbol Table` can only have 'x, 'y, 'z for symbols.