
Lecture 17

CPSC 110

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Lecture 17

Clicker questions

- See the Module 6b notes for a review on all the template rule names, what the relationships in templates are called, and what happens in the functions because of those templates
 - Type comments
 - * Reference
 - * Self-reference
 - * Mutual reference
 - Function template
 - * Natural helper
 - * Natural recursion
 - * Natural mutual recursion

Questions

- To `e l s e` or not to `e l s e` in a template?
 - We can use `e l s e` in a list because it is a standard template. It's always going to look the same.
 - We should NOT use `e l s e` in a generic definition with `one-o f`, because we might extend it later on.
 - * So, if a definition has multiple compound cases, use a predicate for EVERY case! Do NOT use `e l s e`!
- Note about `dd-template` rules: there is no tag for mutual reference, so just use `r e f` in both templates if you are still writing the rules.

Arbitrary-Arity Trees

- List: arbitrary number of elements
 - Binary tree: arbitrary depth tree where each node has 0 to 2 sub-nodes
 - Ternary tree: arbitrary depth tree where each node has 0 to 3 sub-nodes
- How do we know when to stop?
 - We should be able to have as many sub-nodes as we want
- Mutual reference: two types reference each other
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