Post-Mortem

Assignment 08

November 27, 2017

We normally publish the post-mortem for an assignment after it has been marked and released. Here is a list of common errors provided by the graders for Assignment 8.

General

- Many students emulated built-in functions to pass as arguments when using abstract list functions. This was mostly done by creating a lambda functions of the form \((\text{lambda}\ (x)\ (f\ x))\) or \((\text{lambda}\ (x\ y)\ (f\ x\ y))\), where \(f\) is any built-in function. To avoid overcomplicating code in this case, simply pass the built-in function itself as an argument to a higher-order function.

- Many students did not use local definitions to avoid computing the result of an expression more than once.

Question 2

- In part (h), many students did not use member? or contains? as a helper function, and instead defined their own version of these functions inside the body of make-validator.

Question 3

- In part (e), some students had an incorrect contract, and indicated that the function consumed a (listof Any) or a (listof X), instead of a Nested-Listof-X.

Question 4

- Although it was stated in the provided file that design recipe components should be completed for all functions except remove-at and remove-letters, many students were missing design recipe components for the other parts of this question.

- In part (a), many students did not make use of the fact that the consumed list of strings would be sorted, and made their code unnecessarily complex by using functions such as member? and filter.

- Many students did not complete part (c).

Ongoing Errors

The following is a list of common errors from previous assignments that were still repeated for assignment 8.
• Many students are still writing predicates that follow the form \((\text{cond } \texttt{pred? } \texttt{true} \text{ else false})\), where \texttt{pred?} is some question. This is unnecessarily complex, as the function body can be simplified to include only the question \texttt{pred?} itself.

• Many students who included multiple helper functions inside a \texttt{local} were still missing separators between their function blocks. Not only are separators necessary for functions defined at the top level, but they are also necessary for locally defined functions.

• Some students were still missing design recipe components for locally defined helper functions. Remember that purposes and contracts are required for any functions defined inside a \texttt{local}. 