Q&A for assignment 2

Newer items on the top:

Q. Some more clues for question 4?

Here is a hint for Q4. You will use recursion, accumulators, and difference lists (all 3) in answering this question. Accumulators for keeping depth, difference lists in building up the answer, and recursion when dealing with heads that are lists themselves.

Q. Can we use built-in predicates?

No. Do not use any built-in predicates unless mentioned in the assignment. The only exceptions are the I/O predicates. Do not use =.., arg, etc.

Q. Some general clues for question 4?

Just like the parts example, or the assignment 1,Q 7(c) example, write deepList in a way that it deals with the head and the tail separately. Then for the head, write a separate predicate that writes in front of the hole. If the head is a list, update the depth first.

Q. For Question 1, I have looked at the Factorial Numbers example, but cannot figure out what would be an appropriate choice for accumulator for the sequence.

When you look at the Factorial example, the two accumulators are keeping the rows of the table, iteratively building the rows of the Factorial table. In the assignment, the table is a bit easier and is actually just the series of numbers in the sequence. Therefore the accumulator(s) should be used to iteratively construct the sequence S.

Q. Question 4 states that: "returns list L2 with the same structure as L1", yet one of the examples contradicts that statement:
?- deepList([a, [b, c, []]], L).
L = [0, [1, 1, 1]].
Clearly L is not the same structure as the parameter list. Is L = [0, [1, 1, [2]]]. the correct answer to that query?

By that example I was trying to show that we should treat the empty list as a constant. So [] is treated just as b and c, and since it is an element of a list nested inside the main list, its "depth" is 1. We cannot say that L=[0,[1,1,[2]]] since that implies that there is an element with depth=2 in our list, but there is no such element. We would have such a case if we were looking at [a, [b, c, [d]]] for example.

Q. I have a final exam on June 16th. Can I reschedule the lab session?

If you have a final exam exactly at the same time as the lab session for a course you are officially registered in, you can reschedule the lab session depending upon Haluk‘s (TA for this course) availability. Send me an email ASAP. IMPORTANT: You still have to submit the paper version of assignment 2 before 7pm on June 16th.

Q. Do we need to use the built-in predicates for question 5, part(b)?

A. No, do not use built-in predicates (such as =.. or arg).

Q. Can we use any I/O version for question 2?

A. No, do not use Edinburgh edition. Use ISO edition.