Exercise 8

Last update February 18, 2023

This exercise sheet must be handed in via LearnIt.

You solve the assignments in your groups.

Your name must be part of the filename, e.g., `FP-08-<name1>-<name2>.fsx`.

An example: `FP-08-MadsAndersen-HugoHansen.fsx`.

You can only upload one file and it must be of type `fs` or `fsx`.

It is important that you annotate your own code with comments. It is also important that you apply a functional style, i.e., no loops and no mutable variables.

For this hand–in you also need to consider scenarios where your solutions should return an error, i.e., an exception. The requirement is, that no matter what input you pass to your function that fulfils the function type, then the function should return the intended answer or an exception. It is up to you to define the exceptions and whether they should carry extra information, like error messages.

In case you want to check your solutions with CodeJudge, then start with the `template08.fs` file. Assignments marked with (CJ) are covered by tests in Code Judge.

Exercise 8.1 HR exercise 9.8. (CJ)

Exercise 8.2 HR exercise 9.9. (CJ)

Exercise 8.3 HR exercise 9.10.
You probably have to call with a larger number before you see the stack overflow, .e.g., try with `bigListK 300000 id`.

Exercise 8.4 HR exercise 9.11. (CJ)
Code Judge only contains a few tests on `leftTree` and `rightTree`.
The functions `count` and `countC` are found on page 214 in HR.

Exercise 8.5 HR exercise 11.1. (CJ)

Exercise 8.6 HR exercise 11.2. (CJ)