

**Exercise 8**

Last update February 16, 2025

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.

**Exercise 8.1** HR exercise 9.8.

**Exercise 8.2** HR exercise 9.9.

**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.

The functions `count` and `countC` are found on page 214 in HR.

**Exercise 8.5** HR exercise 11.1.

**Exercise 8.6** HR exercise 11.2.