

FP Lab 7

1 Exercises

In the following exercises, please use Scala interpreter (use the `scala` command to run it interactively.)

1. Try out slides XIII(4-5) and XIII(8-10).
2. Define a recursive function

```
merge : (xs: List[Int], ys: List[Int])List[Int]
```

that merges two sorted lists of integers to give a single sorted list. (Cf, Exercise 2 of Lab 4.)

3. In Scala use sequence comprehension to define a function

```
filter : [T](p: T=>Boolean, xs: List[T])List[T]
```

which selects every element from a list of elements of any type `T` that satisfies a predicate.

2 Revision Exercises

If you have exercises from previous lab sessions that you have not done or completed but wish to complete, please do it now. (Please try your best to understand them.)