Questions & Answers

Functional Programming 2020/2021



Administrativia

Format of the exam

Similar to the previous exams in the web

- The exam is on Remindo
- Two types of questions
 - Open: explain something or write some code
 - Multiple choice: choose one answer
- You cannot bring any notes to the exam, nor can you use ghc/ghci/your favourite editor etc.
- You have to answer in English or Dutch

Contents of the exam

Everything until today

- Basic types: lists, tuples, numbers
- User-defined data types
- Define functions by pattern matching
- Recursion on lists and other data types
- Write functions using accumulators
- ▶ Define and use higher-order functions
- Write classes and instances
- ▶ Infer and check the type of an expression

Contents of the exam

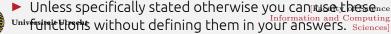
Do I need to know all the types by heart?

Writing and understanding type signatures is something you need to learn, and we need to test

- We expect you to know, or be able to deduce, the types of the functions:
 - id, (.), const, flip, fst, snd, null, head, tail, (++), concat, foldr, foldl, map, filter, sum, all, max, min, any, elem, not, (&&), (||), zip, reverse, take, drop, and all the members of the type classes Show, Eq, Ord, Enum and Num.
- Some higher-order functions are very important

```
▶ map :: (a → b) → [a] → [b]
```

In most cases you can deduce their type if you know what they do



Outcome of the exam

- You should expect your grades in about two weeks
- ▶ What happens if I fail the exam?
 - Nothing, your grade is the average with the final one
 - ▶ Remember, $T = 0.3 \times \text{midterm} + 0.7 \times \text{final}$
 - Reflect on your mistakes and act to fix them

Q&A session