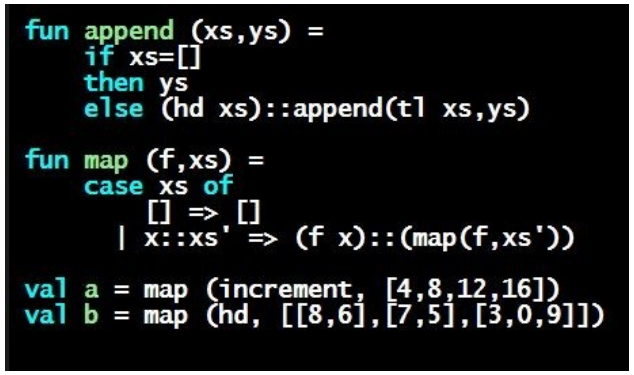

Programming Languages

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Different Modules Define Different Types

Can't mix-and-match module bindings

Modules with the *same signatures* still define *different types*

So things like this do not type-check:

- **`Rational1.toString(Rational2.make_frac(9,6))`**
- **`Rational3.toString(Rational2.make_frac(9,6))`**

This is a crucial feature for type system and module properties:

- Different modules have different internal invariants!
- In fact, they have different type definitions
  - **`Rational1.rational`** looks like **`Rational2.rational`**, but clients and the type-checker do not know that
  - **`Rational3.rational`** is **`int*int`** not a datatype!