

Case Study

The Water Pouring Problem

States and Moves

Glass: Int

State: Vector[Int] (one entry per glass)

Moves:

Empty(glass)

Fill(glass)

Pour(from, to)

Variants

In a program of the complexity of the pouring program, there are many choices to be made.

Choice of representations.

- ▶ Specific classes for moves and paths, or some encoding?
- ▶ Object-oriented methods, or naked data structures with functions?

The present elaboration is just one solution, and not necessarily the shortest one.

Guiding Principles for Good Design

- ▶ Name everything you can.
- ▶ Put operations into natural scopes.
- ▶ Keep degrees of freedom for future refinements.