

# Design Patterns

Link<sup>1</sup>

## Clean Code, Episode 25

### Timings:

- 00:00-00:40 opening
- 00:40-03:30 introduction
- 03:30-11:10 astronomy lesson: neutron stars (may skip)
- 11:10-20:05 design patterns
  - 13:00 bisected oval (example)
- 20:05-23:56 the GOF book
- 23:56-29:45 the command pattern
- 29:45-38:47 do & undo
- 38:47-52:10 the actor model
- 52:10-54:20 summary
- 54:20-55:55 end credits (may skip)

### Concepts

- **pattern** solution applied more than once to a problem when it occurs in a particular context
- Types of design patterns (for software development)
  - **creational pattern** pattern that helps with the creation of an instance of an object
  - **structural pattern** pattern that helps with the setup of communication pathway between different groups of objects
  - **behavioral pattern** pattern that helps with the partitioning of system behaviors into discrete classes
- **What is purpose of software design patterns?**
  - Provide strategies for minimizing dependencies during system design.

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<sup>1</sup>[https://www.safaribooksonline.com/videos/clean-code/9780134661742/9780134661742-CODE\\_E26](https://www.safaribooksonline.com/videos/clean-code/9780134661742/9780134661742-CODE_E26)

- **command** (in software development) ~- an object with the role of storing all the information required for executing a particular action. See <https://www.baeldung.com/java-command-pattern>.
- **Command pattern** an interface, typically named *Command*, with a single method, "Execute".
- a command is an object, and objects can hold state; so a command object that performs a function could save information about what it did (i.e., it remembers the relevant details about its actions); this means it can undo those actions at a later time