

# Maintainability

## Simplicity: Managing Complexity

- A big ball of mud
  - explosion of the state space
  - tight coupling of modules
  - tangled dependencies
  - inconsistent naming and terminology
  - hacks aimed at solving the performance problems
  - special-casing to work around issues elsewhere
- Good abstraction can hide complexity behind a clean and simple-to-understand facade
  - e.g., high-level programming language, SQL

# Maintainability

## **Evolvability: Making change easy**

- Agility on a data system level
  - simple and easy-to-understand system
- In terms of organizational processes
  - Agile working patterns
  - Test-driven development and refactoring