

# Maintainability

## More costly than development

- Maintenance cost of legacy systems

|                          |                          |                  |                    |
|--------------------------|--------------------------|------------------|--------------------|
| fix bugs                 | keep the sys operational | trouble shooting | adopt new platform |
| modify for new use cases | repay technique debt     | new features     |                    |

- Design principles
  - Operability - make it easy for operations teams to keep the sys running smoothly
  - Simplicity - make it easy for new engineers to understand the system
  - Evolvability - make it easy for engineers to modify for new use cases
    - aka extensibility, modifiability, or plasticity

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## Operability: Making Life Easy for Operations

- “Good operations can afterwork around the limitations of bad (or incomplete) software, but good software cannot run reliably with bad operations”