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Software Engineering Design & Construction

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Class Design Principles

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- ... state desired properties of class designs.
- ... are heuristics.
- ... help making a class design usable for client classes.

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Class Design Principles ...

- state desired properties of class designs. E.g. “A class should have only one responsibility.”
- are heuristics that serve as guidelines to produce good designs.
- are not absolute criteria to judge about the quality of designs.
- help making a class design usable for client classes. We think about how our classes are used by other classes.

The S.O.L.I.D. Principles

- **S**ingle Responsibility Principle (**SRP**)
- **O**pen-closed Principle (**OCP**)
- **L**iskov Substitution Principle (**LSP**)
- **I**nterface Segregation Principle (**ISP**)
- **D**ependency Inversion Principle (**DIP**)

Class Design Principles
aim for code we can
efficiently work on!

During its lifetime of a software the (class) design changes constantly. This is a consequence of requirement changes which is the rationale for conducting an iterative design process.

Class Design Principles are not only about the current state of the code, but also give you an understanding of how well the code will be under the effect of change. Especially whether and how changes will affect client classes.