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SOLID

In object-oriented computer programming, SOLID is a mnemonic acronym for five design principles intended to make software designs more understandable, flexible and maintainable.

Principles

- Single responsibility
- Open-closed
- Liskov substitution
- Interface segregation
- Dependency inversion

Snippet from [Wikipedia](#): **SOLID**

In software engineering, **SOLID** is a mnemonic acronym for five design principles intended to make object-oriented designs more understandable, flexible, and maintainable. The principles are a subset of many principles promoted by American software engineer and instructor Robert C. Martin, first introduced in his 2000 paper *Design Principles and Design Patterns* discussing software rot.^{:2-3}

The SOLID ideas are

- The Single-responsibility principle: "There should never be more than one reason for a class to change." In other words, every class should have only one responsibility.
- The Open-closed principle: "Software entities ... should be open for extension, but closed for modification."
- The Liskov substitution principle: "Functions that use pointers or references to base classes must be able to use objects of derived classes without knowing it." See also design by contract.
- The Interface segregation principle: "Clients should not be forced to depend upon interfaces that they do not use."
- The Dependency inversion principle: "Depend upon abstractions, [not] concretes."

The SOLID acronym was introduced later, around 2004, by Michael Feathers.

Although the SOLID principles apply to any object-oriented design, they can also form a core philosophy for methodologies such as agile development or adaptive software development.

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External links:

- <https://scotch.io/bar-talk/s-o-l-i-d-the-first-five-principles-of-object-oriented-design>
- https://medium.com/@mari_azevedo/s-o-l-i-d-principles-what-are-they-and-why-projects-should-use-them-50b85e4aa8b6
- <https://developerexperience.io/practices/solid>

[kb](#), [architecture](#), [programming](#), [acronym](#)

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