## CATEGORIES OF DESIGN PATTERNS

- Creational Design Patterns
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CREATIONAL DESIGN PATTERNS



Singleton design pattern is like having a clingy best friend who never lets you hang out with anyone else.

Factory Method design pattern is like having your own personal assembly line for creating new objects.

Composite pattern. This is like having a Lego set that can build an entire city.

Abstract Factory design pattern is like being the head chef of a fancy restaurant.



## Examples

\* Adapter pattern. This is like having a universal translator for your code.

Bridge pattern. This is like having a really fancy suspension bridge for your code

Composite pattern. This is like having a Lego set that can build an entire city.

Facade pattern, which is like having a personal assistant for your code

Flyweight pattern. This is like having a really efficient Lego storage system





- Observer pattern is like the organized friend who always keeps everyone updated on what's going on
- Chain of Responsibility pattern, which is like. You pass a problem from one friend to the next until someone finally takes responsibility for it.
- Command pattern is like your bossy friend who always tells everyone what to do.
- State pattern is like your moody friend who's always changing their mind.
- Strategy pattern, which is like having a bunch of different friends with different skills.



## Additional Resources

Design Patterns: Elements of Reusable Object-Oriented Software: This is the classic book on design patterns, written by the "Gang of Four" (Erich Gamma, Richard Helm, Ralph Johnson, and John Vlissides). It's a must-read for any software engineer interested in design patterns. Link:

https://www.amazon.com/Design-Patterns-Elements-Reusable-Object-Oriented/dp/0201633612

Head First Design Patterns: This is a fun and engaging book on design patterns, with a focus on practical examples and real-world applications. It's a great resource for those who prefer a more visual and interactive approach to learning. Link: https://www.amazon.com/Head-First-Design-Patterns-Brain-Friendly/dp/0596007124

Refactoring Guru: This website provides a comprehensive overview of design patterns, with examples in various programming languages. It's a great resource for those who prefer online tutorials and visual aids. Link: <a href="https://refactoring.guru/design-patterns">https://refactoring.guru/design-patterns</a>

Design Patterns in Python: This is a GitHub repository that provides examples of various design patterns in Python. It's a great resource for those who prefer to learn by doing and exploring code examples. Link: <a href="https://github.com/faif/python-patterns">https://github.com/faif/python-patterns</a>

Design Patterns Game: This is a fun and interactive way to learn about design patterns. It's a game that challenges you to identify design patterns in code examples, with points and rewards for correct answers. Link: <a href="https://gameful.design/games/5980e0c28adad20400c960b5">https://gameful.design/games/5980e0c28adad20400c960b5</a>