

# [Decorator Design Pattern]

The **Decorator Pattern** is a **structural design pattern** that dynamically adds behavior or responsibilities to an object at runtime without modifying its code. It's a flexible alternative to subclassing, as it allows you to add features to individual objects rather than entire classes.

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## Real-World Analogy:

Consider a coffee shop:

- You start with a basic coffee.
  - You can add extra features like milk, sugar, whipped cream, or caramel syrup.
  - Each addition builds upon the base coffee and other previous additions.
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## Key Concepts:

1. **Component:** The base interface or abstract class that defines common operations.
2. **Concrete Component:** The basic object to which additional responsibilities can be attached.
3. **Decorator:** An abstract class that wraps the component and adds new behavior.
4. **Concrete Decorators:** Specific implementations of decorators that add functionality to the component.

\* Decorator in JS @ are  
example of this pattern