

# Flyweight

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# Overview

## **Motivation**

## **FlyweightFactory**

- Naive approach
- Apply the Flyweight

# Motivation



## **Share one instance to represent many**

- Separate state-dependent part
- Store intrinsic/immutable state in the Flyweight object
- Extrinsic state managed by clients
- Callers should be able to modify individual state, not the intrinsic one

# Flyweight

The Flyweight pattern shares common objects that can be used identically.

# Demo

## **FlyweightFactory Demo**

- The problem
- Flyweight refactoring effects

# Summary

## **Use the Flyweight to:**

- Share one instance to represent many
- Separate state-dependent and state-independent part
- Encapsulate immutable state in the Flyweight object
- Allow clients to manage the extrinsic state managed by clients

## **Pitfalls**

- Allow changes of the immutable state
- Not protecting against concurrent access