Structural Design Patterns

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Structural Design Patterns

Concerned with how objects are made up and simplify relationships between objects.

Structural Patterns

Deal with the relationship of objects

Extend functionality

Simplify functionality

Decorator Pattern

Used to add new functionality to an existing object, without being obtrusive.

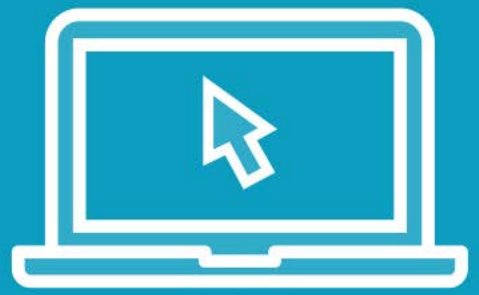
More complete inheritance

Wraps an object

Protects existing objects

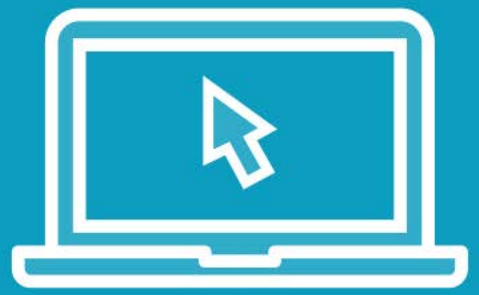
Allows extended functionality

Demo



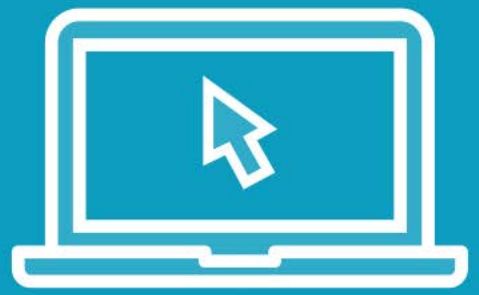
Lets look at simple decoration

Demo



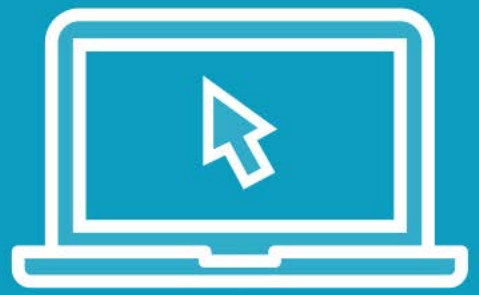
And now for something more complicated....

Demo



Decorating Objects in Angular

Demo



Decorating Services in Angular

Façade Pattern

Used to provide a simplified interface to a complicated system.

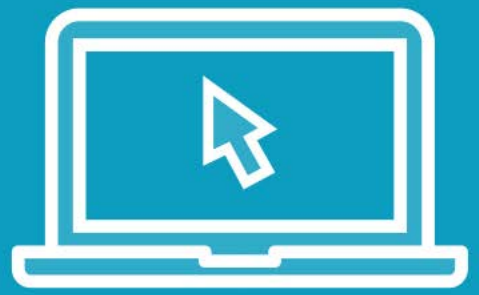
Think about the front of a building

Facade hides the chaos from us

Simplifies the interface

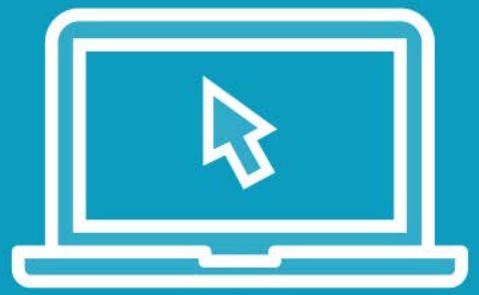
Think JQuery

Demo



Lets look at a façade in node

Demo



Lets look at a façade in Angular

Flyweight Pattern

Conserves memory by sharing portions of an object between objects.

Our tasks had lots of non unique data

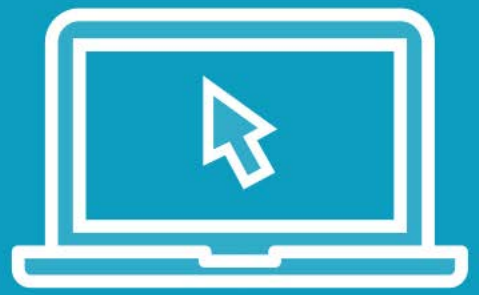
Flyweight shares data across objects

Results in a smaller memory footprint

Like a boxer --- a flyweight....

But only if you have large numbers of objects

Demo



Flyweight Demo

Summary

Structural Design Patterns

Decorator Pattern

Façade Pattern

Flyweight Pattern