

C# Design Patterns: Composite

COMPOSITE PATTERN



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Course Overview



Understanding the Composite Pattern
Implementing Composite
Leveraging existing implementations



What is the Composite Pattern?





Tree structures

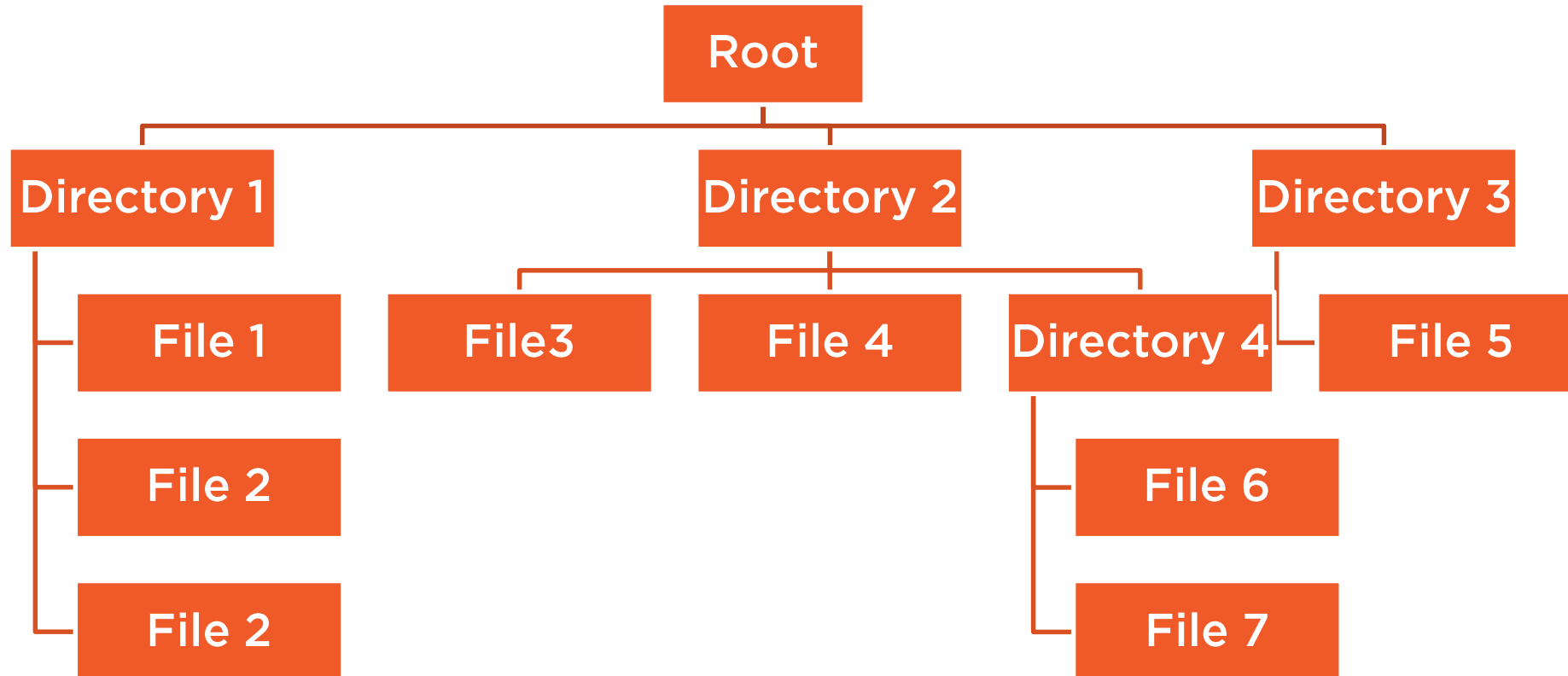
Composite objects into tree structures

Uniform interaction

- Leaf: No children
- Composite: Has children



Composite



Composite Pattern Characteristics

Component

I am a common interface

Composite

I am a component with children

Leaf

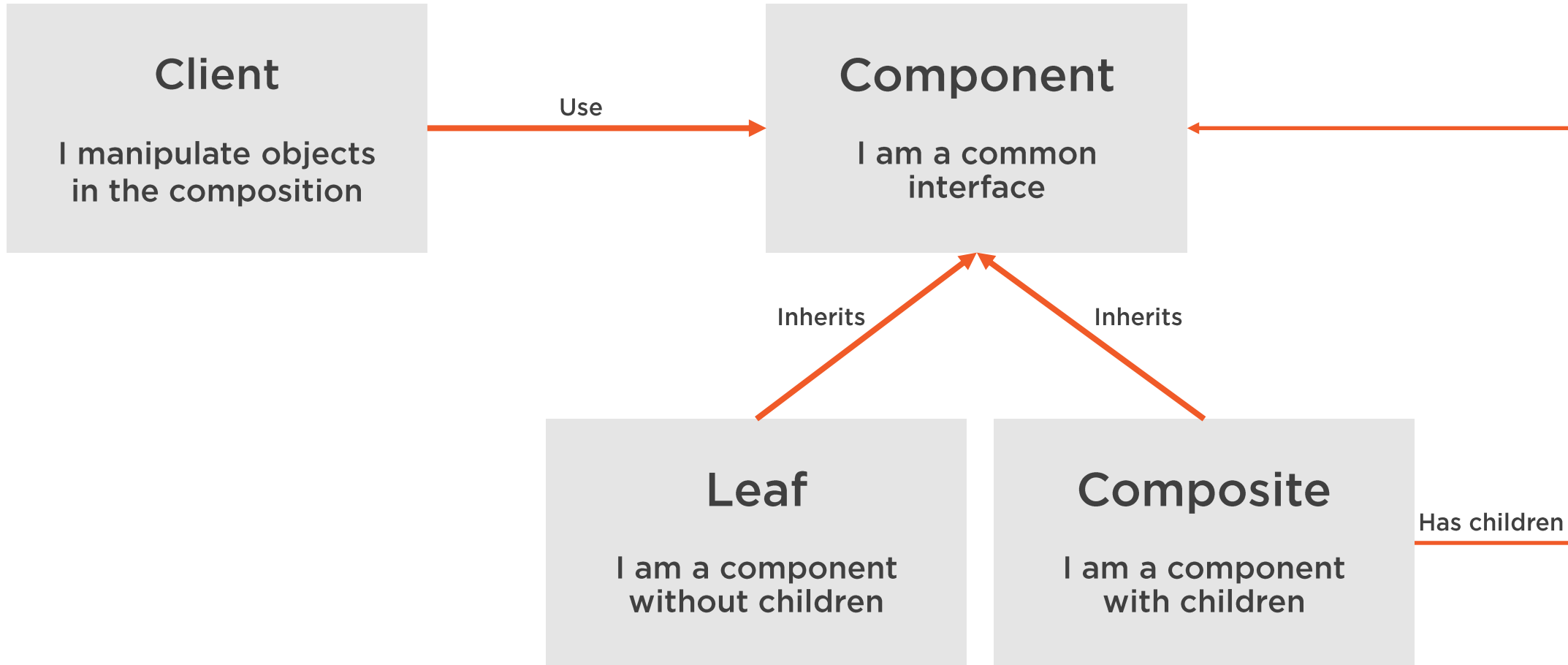
I am a component without children

Client

I manipulate objects in the composition



Composite Pattern Characteristics



Manipulate component at
any level of tree hierarchy



Demo



Composite Pattern – Structural example



Demo



Alternative Considerations



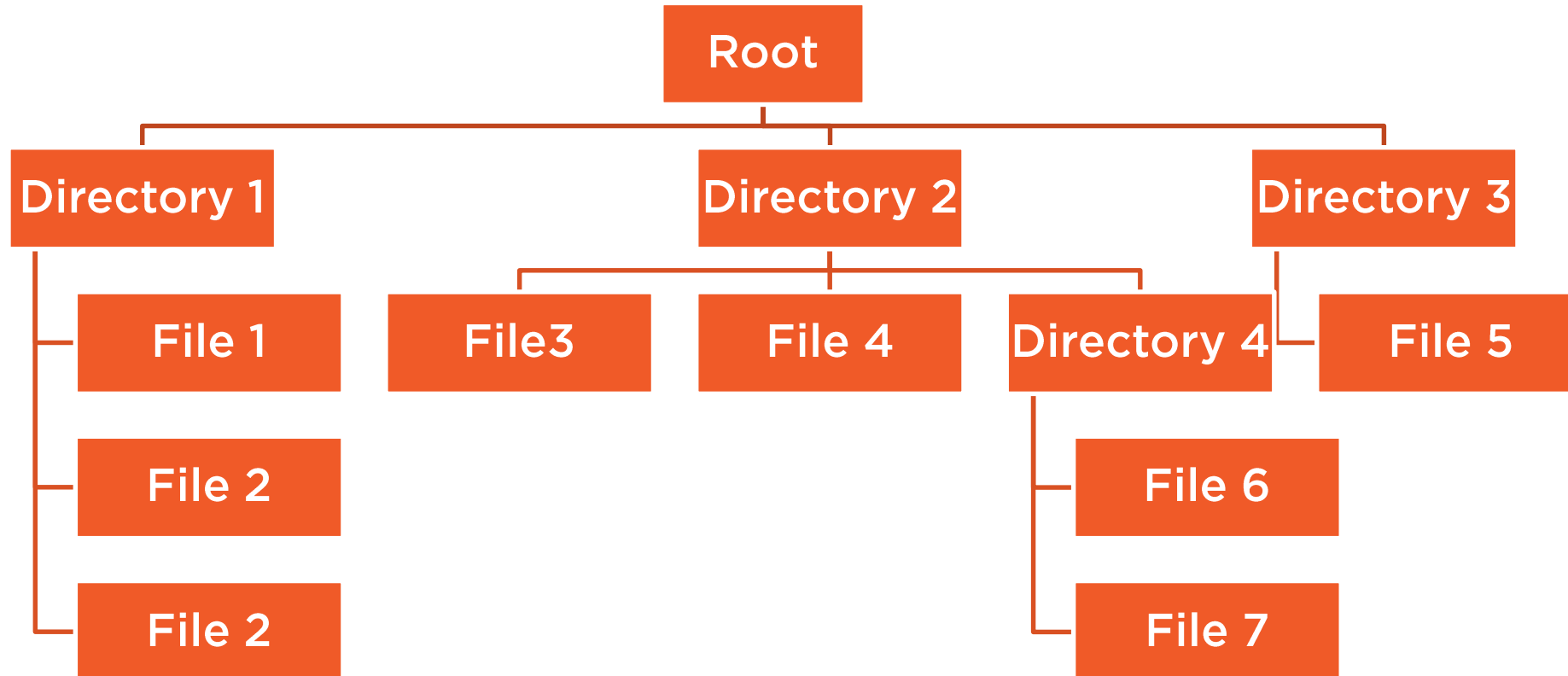
Demo



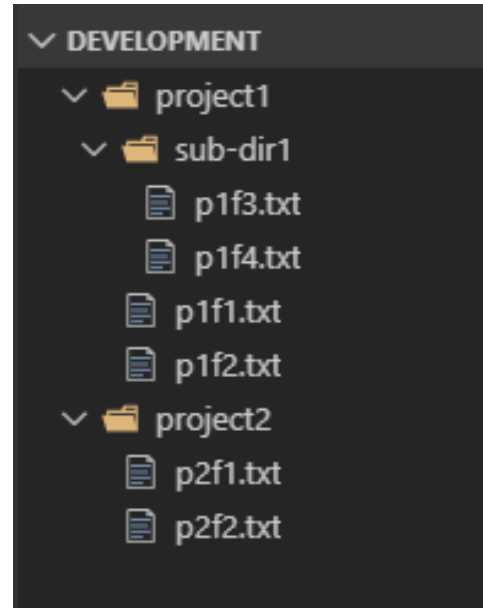
Real World Example – File System



Composite



Example File System



Demo



Encapsulate Composite with Builder



Demo



Examples of Composites in .NET



Summary



Understanding the Composite Pattern

Implementing Composite

Leveraging existing implementations



Manipulate component at
any level of tree hierarchy



Thanks for watching!

