Module 24: "Mediator"





Agenda

- Introductory Example: Colleague Chatroom
- Challenges
- Implementing the Mediator Pattern
- Pattern: Mediator
- Overview of Mediator Pattern





Introductory Example: Colleague Chatroom

```
interface IColleague
{
    string Name { get; }
    void Register( IColleague colleague );
    void Send( string messageContents );
    void Receive( IMessage message );
}
```



Challenges

- How do we loosely couple the various chatroom participants?
- ▶ Do we <u>really</u> need to send all messages to everybody?





Pattern: Mediator

Define an object that encapsulates how a set of objects interact. Mediator promotes loose coupling by keeping objects from referring to each other explicitly, and it lets you vary their interactions independently.

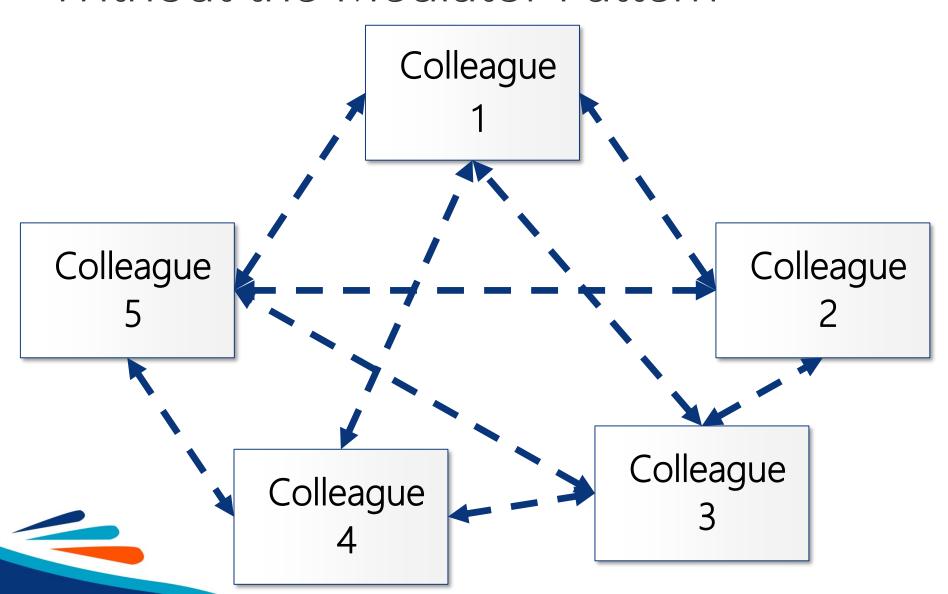
Outline

- Define a separate object ("mediator") that encapsulates the interactions between objects
- All objects interact with the mediator instead of interacting with each other directly
- Objects have no explicit knowledge of other objects that the mediator

Origin: Gang of Four

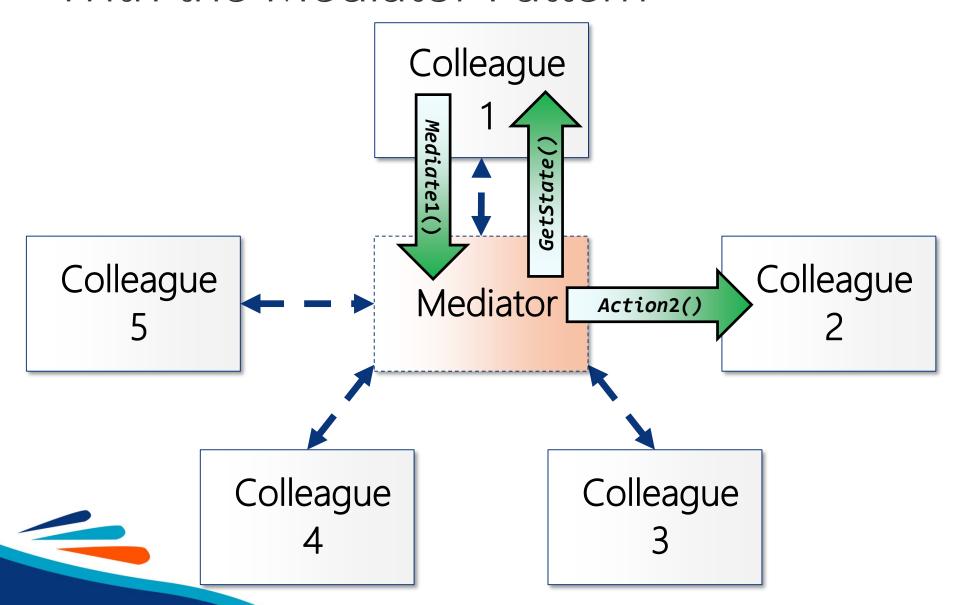


Without the Mediator Pattern



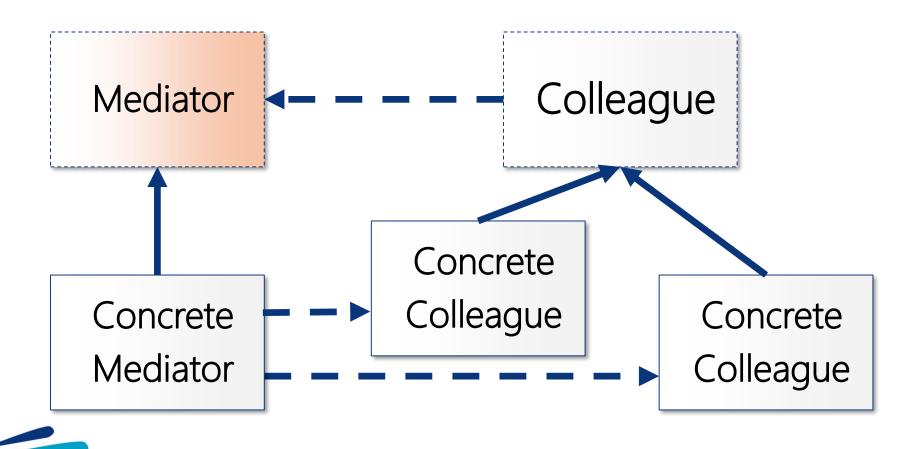


With the Mediator Pattern





Overview of the Mediator Pattern





Overview of Mediator Pattern

- Mediator
 - Interface or abstract class handling communication between Colleagues
- Concrete Mediator
 - Implements the Mediator interface
 - Aware of all Concrete Colleague objects
 - Coordinates communication between Colleagues
- Colleague
 - Defines the interface for communication with other Colleagues
- Concrete Colleague
 - Implements the Colleague interface
 - Communicates with other Colleagues indirectly through the Mediator





Denmark

WWW:http://www.wincubate.net

