



Módulo 16





BackEnd Java

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A decorative graphic on the left side of the slide consists of several hexagons of varying shades of blue and cyan. Some hexagons contain white icons: a lightbulb, a thumbs-up, a smartphone, a magnifying glass, and a gear. There is also a network-like icon with a central node and radiating lines. A large, solid cyan hexagon is positioned in the center of the graphic area.

Padrões de Projetos - Parte 2



Padrões GOF comportamentais

Esses padrões, mostram o processo de como os objetos ou classes se comunicam. Em geral, buscam um baixo acoplamento entre os objetos, apesar da comunicação que existe entre eles.

- Chain of Responsibility
- Command
- Interpreter
- Iterator
- Mediator
- Memento
- Observer
- State
- Strategy
- Template Method
- Visitor



A decorative graphic on the left side of the slide. It features a large central hexagon with a blue-to-teal gradient, containing the number '1'. Surrounding this central hexagon are several smaller hexagons of varying shades of blue and teal. Some of these smaller hexagons contain white icons: a lightbulb, a thumbs-up, a smartphone, a magnifying glass, and a gear. There is also a network-like icon with a central node and several smaller nodes connected by lines.

1

Template Method

Padrão comportamental



Template Method

Permite definir o esqueleto de um algoritmo em uma classe base e permite que as subclasses substituam todas ou algumas etapas sem alterar a estrutura geral do algoritmo.



Template Method

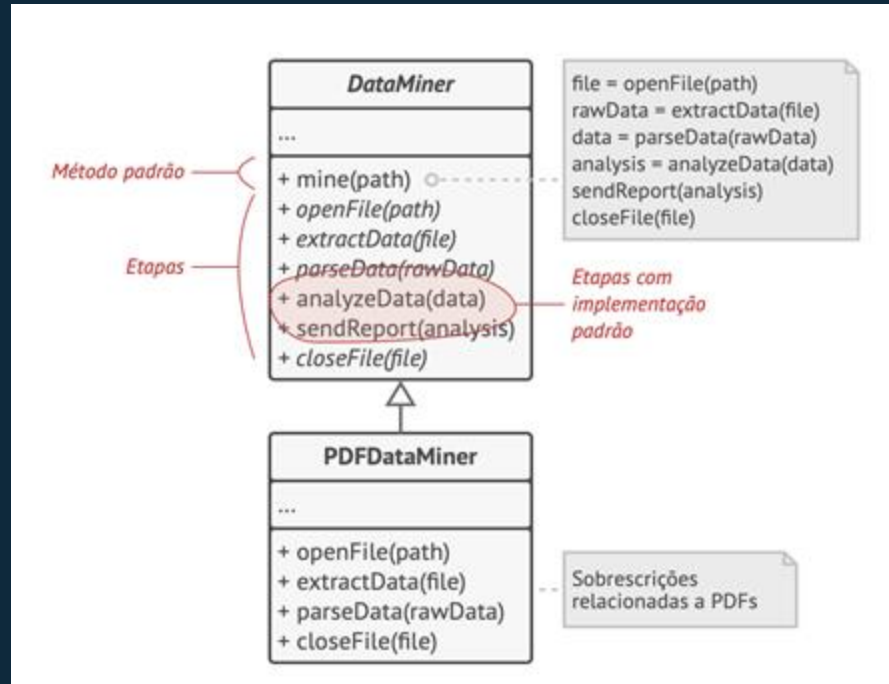


Figura 1

Template Method

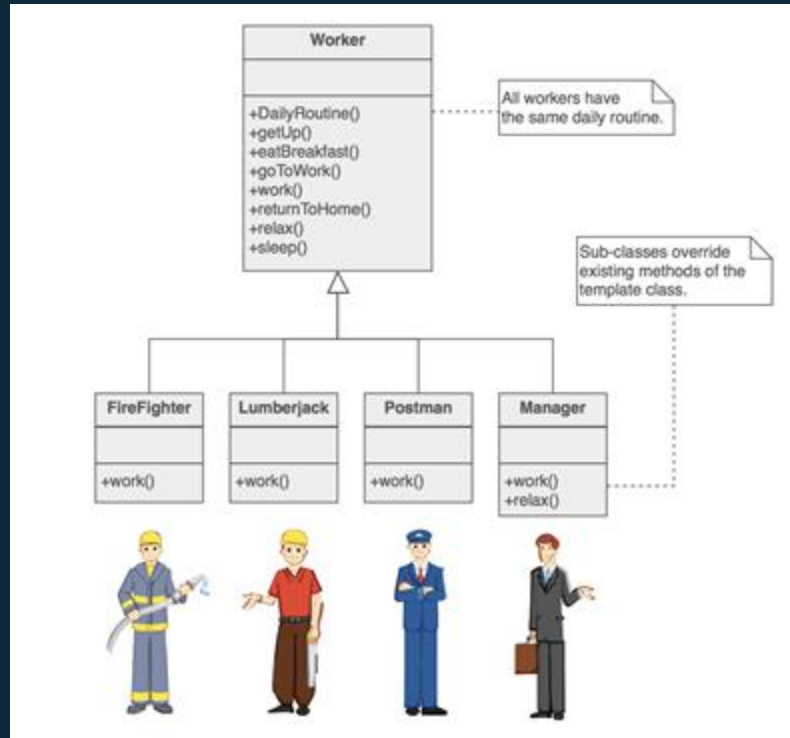


Figura 2

A decorative graphic on the left side of the slide. It features a large central hexagon with a white number '2'. Surrounding this central hexagon are several smaller hexagons of varying shades of blue and cyan. Some of these smaller hexagons contain white icons: a lightbulb, a thumbs-up, a smartphone, a magnifying glass, and a gear. There is also a network-like icon with a central node and several connecting lines.

2

Observer

Padrão comportamental



Observer

Permite que um objeto notifique outros objetos sobre alterações em seu estado.



Observer

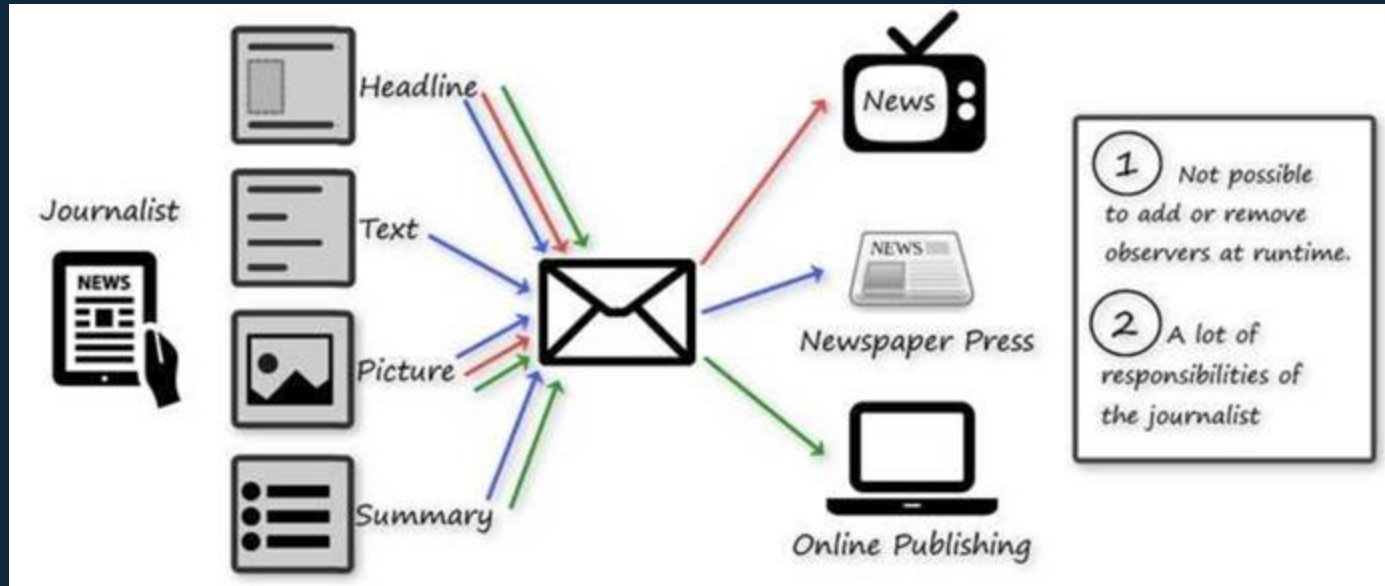


Figura 3

Observer

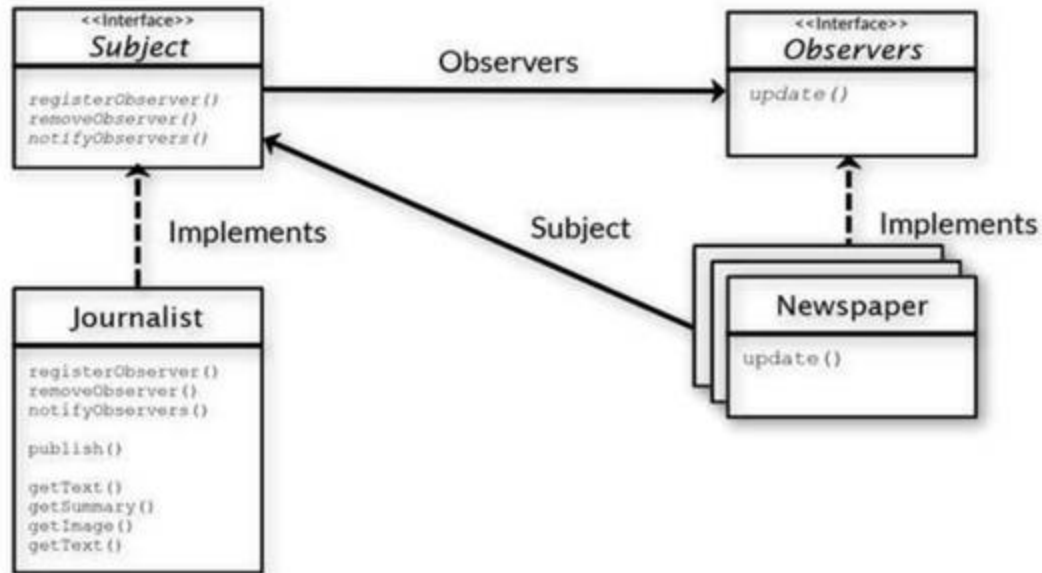


Figura 4



Padrões GOF estruturais

Esses padrões descrevem os seguintes aspectos: elaboração, associação e a organização entre objetos e classes/interfaces. Permitem combinar objetos em estruturas mais complexas, ou descrever como as classes são herdadas ou compostas a partir de outras.

- Adapter
- Bridge
- Composite
- Decorator
- Facade
- Flyweight
- Proxy



A decorative graphic on the left side of the slide. It features a large central hexagon with a blue-to-teal gradient, containing the number '3'. Surrounding this central hexagon are several smaller hexagons of varying shades of blue and teal. Some of these smaller hexagons contain white icons: a lightbulb, a thumbs-up, a smartphone, a magnifying glass, and a gear. There is also a network-like icon with a central node and several smaller nodes connected by lines.

3

Facade

Padrão estrutural



Facade

Oferece uma interface unificada para um conjunto de objetos que constituem um subsistema, definindo uma interface de alto nível que facilita no uso.



Facade

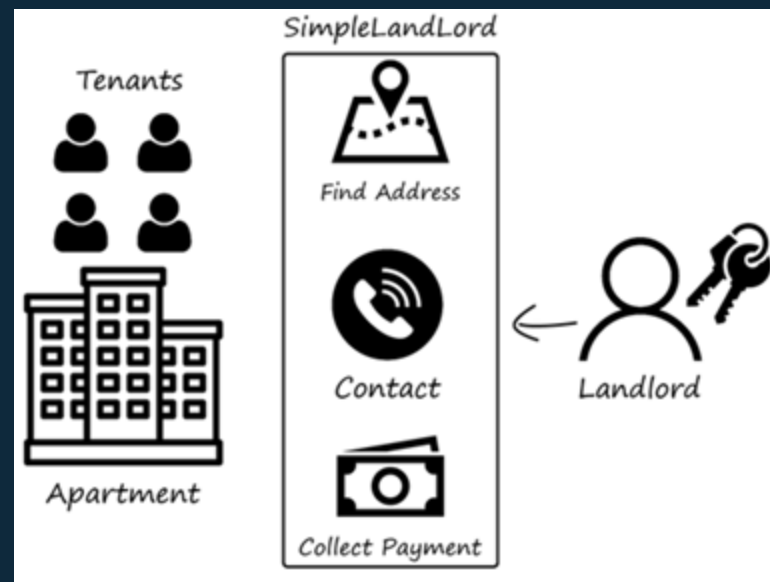
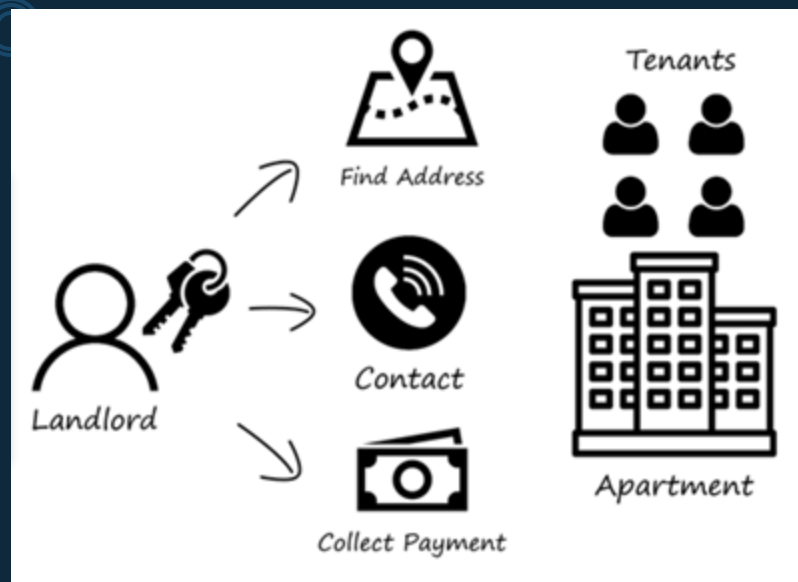


Figura 5

Facade

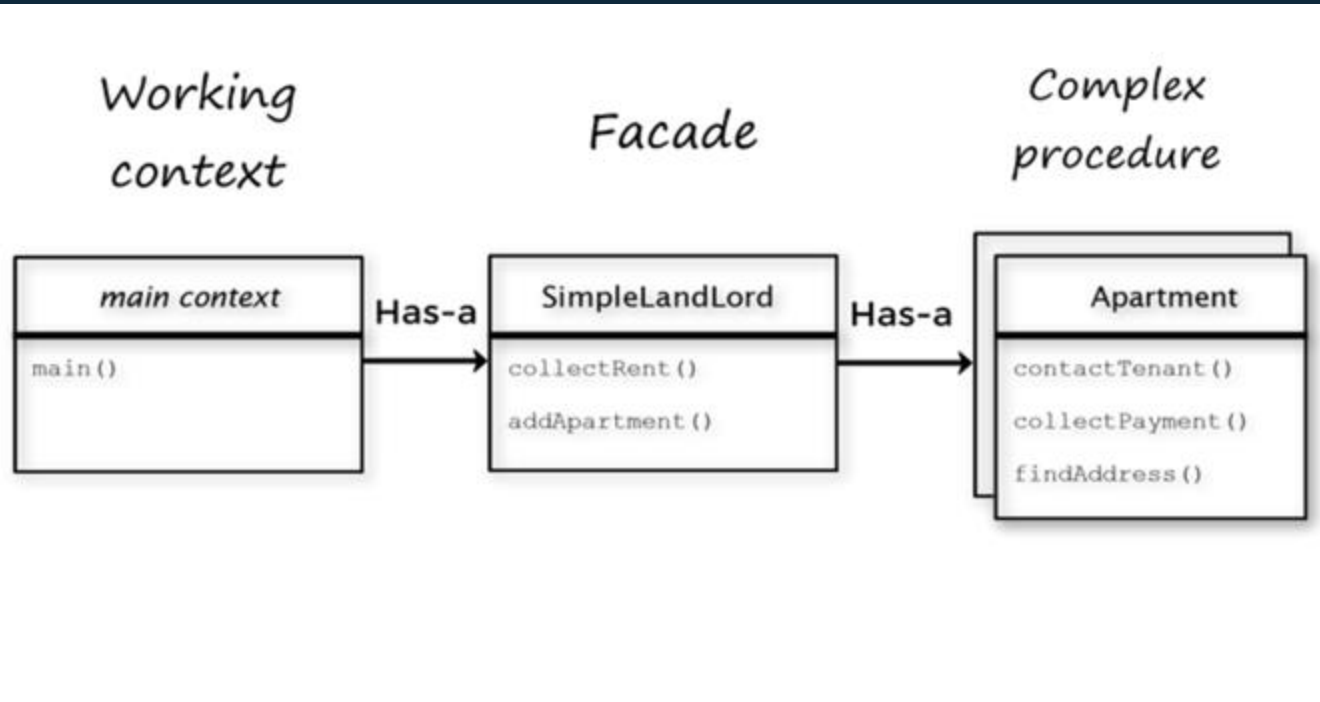


Figura 6

A decorative pattern of hexagons in various shades of blue and cyan. Some hexagons contain white icons: a lightbulb, a thumbs-up, a smartphone, a magnifying glass, and a gear. A network of dots is also visible on the left side.

4

Adapter

Padrão estrutural



Adapter

A ação desse padrão converte a interface de uma classe em outra, esperada pelo objeto cliente. Através dessa conversão, permite que classes com incompatibilidade de interfaces, consigam ser adaptadas para que outros objetos possam trabalhar juntos.



Adapter

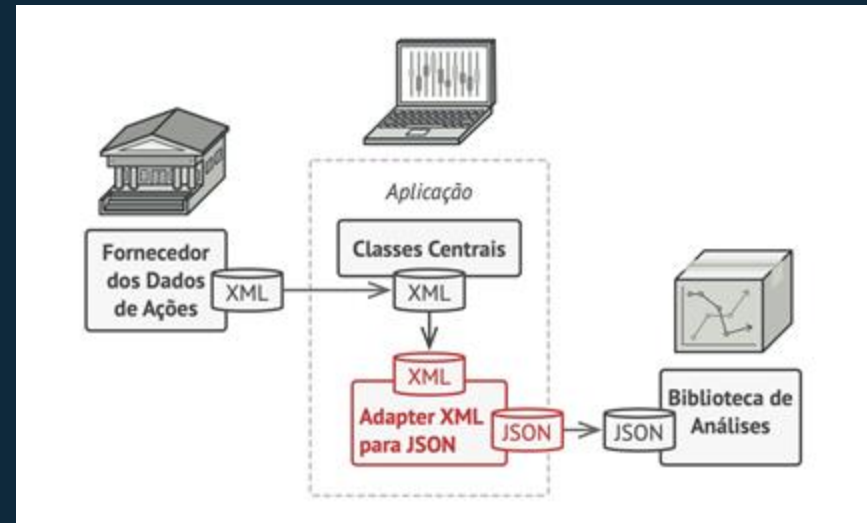


Figura 7

Adapter

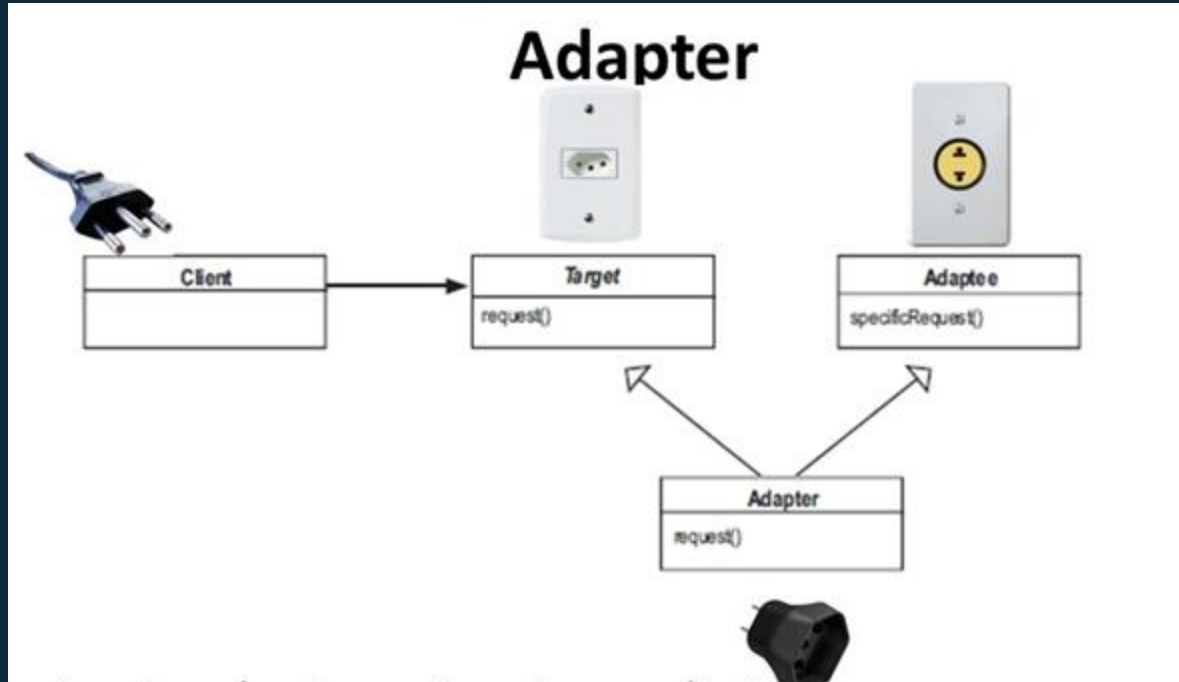


Figura 8



Referências

[Exemplos disponíveis no meu github:](#)

<https://github.com/digaomillenium/backend-java-ebac>

<https://www.devmedia.com.br/entendendo-os-conceitos-dos-padroes-de-projetos-em-java/29083>

<http://integu.net/factory-pattern/>

<https://refactoring.guru/pt-br/design-patterns/java>

→ **Figura 3, 4, 5, e 6:**

◆ <http://integu.net/factory-pattern/>

→ **Figura 1, 2, 7:**

◆ <https://refactoring.guru/pt-br/design-patterns/java>

