Creating Web Pages Using Facelets

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Overview

Creating Web Pages Using Facelets

- Standard Tag Libraries
- Templating System

Managing Resource Files

- Resource Libraries
- Resource Library Contracts

Demo Application

- Web Shop for Musical Instruments

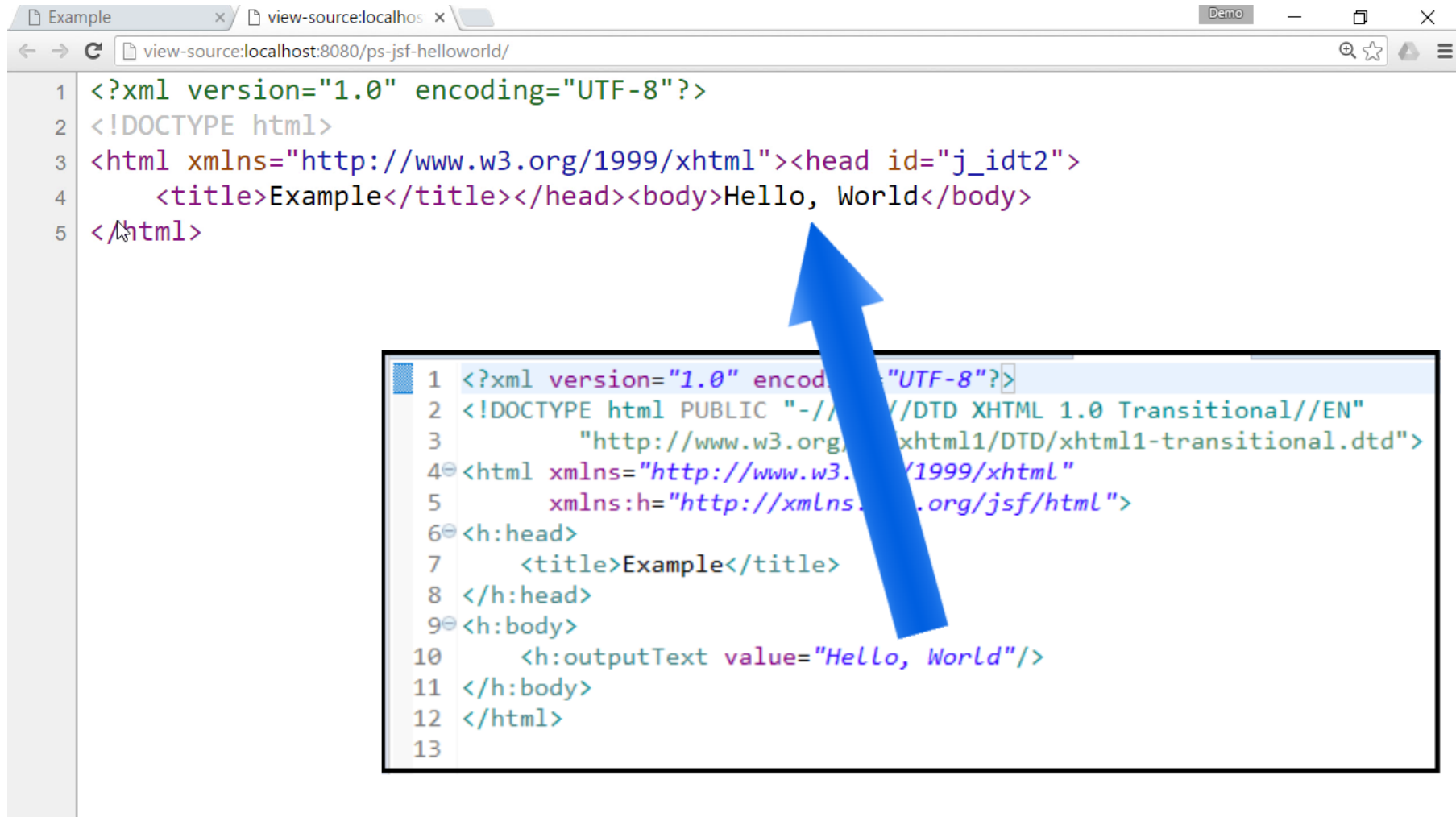# Creating Web Pages Using Facelets

The Hello World Example

The Hello World Example

JSF Tag Libraries

- **JSP taglib directive**

  ```
  <%@ taglib prefix="c" uri="http://xmlns.jcp.org/jsp/jstl/core" %>
  ```

- **JSF XML namespace declaration**

  ```
  <html xmlns="http://www.w3.org/1999/xhtml"
        xmlns:c="http://xmlns.jcp.org/jsp/jstl/core">
  ```

JSF Standard Tag Libraries

- ## HTML
  - **Standard HTML UI components**
  - `xmlns:h="http://xmlns.jcp.org/jsf/html"`

- ## Facelets
  - **Templating**
  - `xmlns:ui="http://xmlns.jcp.org/jsf/facelets"`

- ## Core
  - **Listeners, converters, validators, AJAX and more**
  - `xmlns:f="http://xmlns.jcp.org/jsf/core"`

- ## Composite Components
  - **Creating composite components**
  - `xmlns:cc="http://xmlns.jcp.org/jsf/composite"`

JSF Standard Tag Libraries

- **Passthrough Attributes**
  - Support for HTML5
  - `xmlns:p="http://xmlns.jcp.org/jsf/passthrough"`

- **Passthrough Elements**
  - Support for HTML5
  - `xmlns:jsf="http://xmlns.jcp.org/jsf"`

- **JSTL Core**
  - JSP Standard Tag Library Core
  - `xmlns:c="http://xmlns.jcp.org/jsp/jstl/core"`

- **JSTL Functions**
  - JSP Standard Tag Library Functions
  - `xmlns:fn="http://xmlns.jcp.org/jsp/jstl/functions"`

Beware of Old Versions
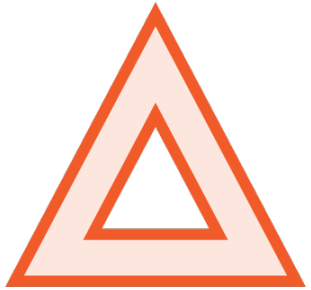
- **This course is about JSF 2.2**
  - **Part of Java EE 7**

- **Standard Tag Library Namespace Prefix**
  - Since JSF 2.2: `http://xmlns.jcp.org`
  - Before JSF 2.2: `http://java.sun.com`

The Facelets Templating System

Facelets
Templating
Tags

ui:include

ui:composition

ui:insert

ui:define

ui:params

ui:decorate

Including Content

page.xhtml

```
<ui:include
    src="header.xhtml"/>



<ui:include
    src="footer.xhtml"/>
```

header.xhtml

footer.xhtml

Using Templates

index.xhtml

Popular Products
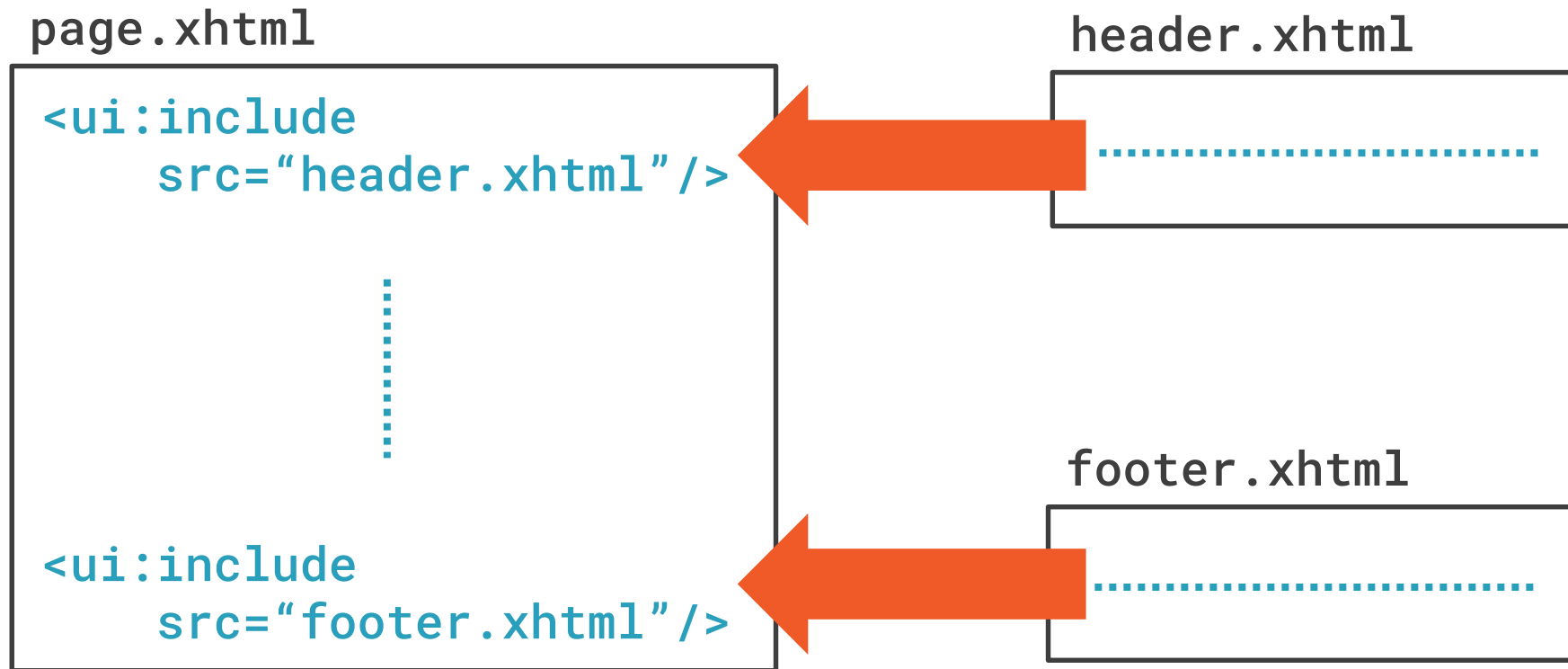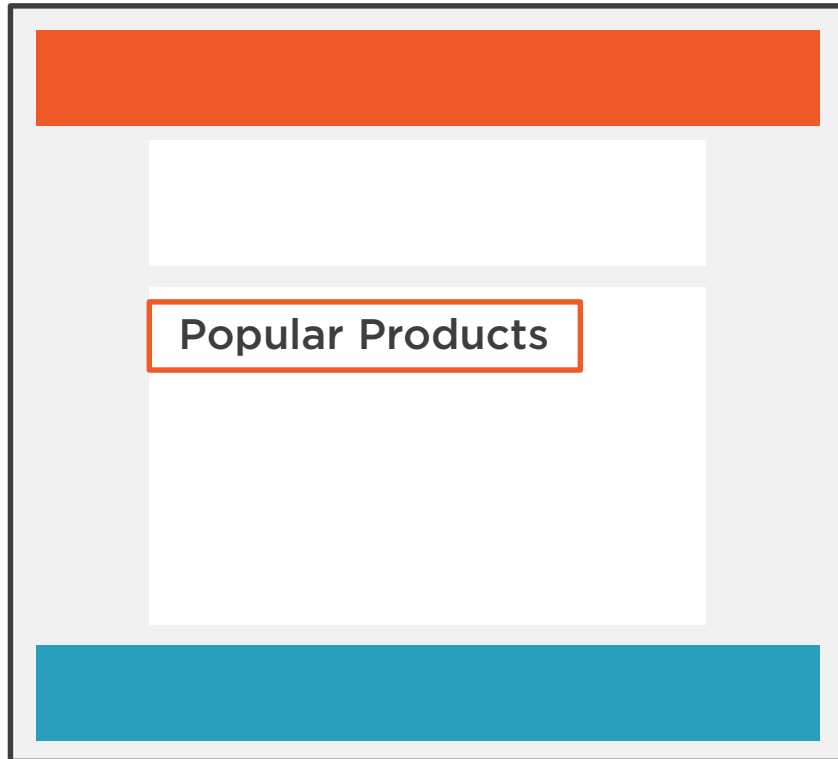
product-details.xhtml

Product Details
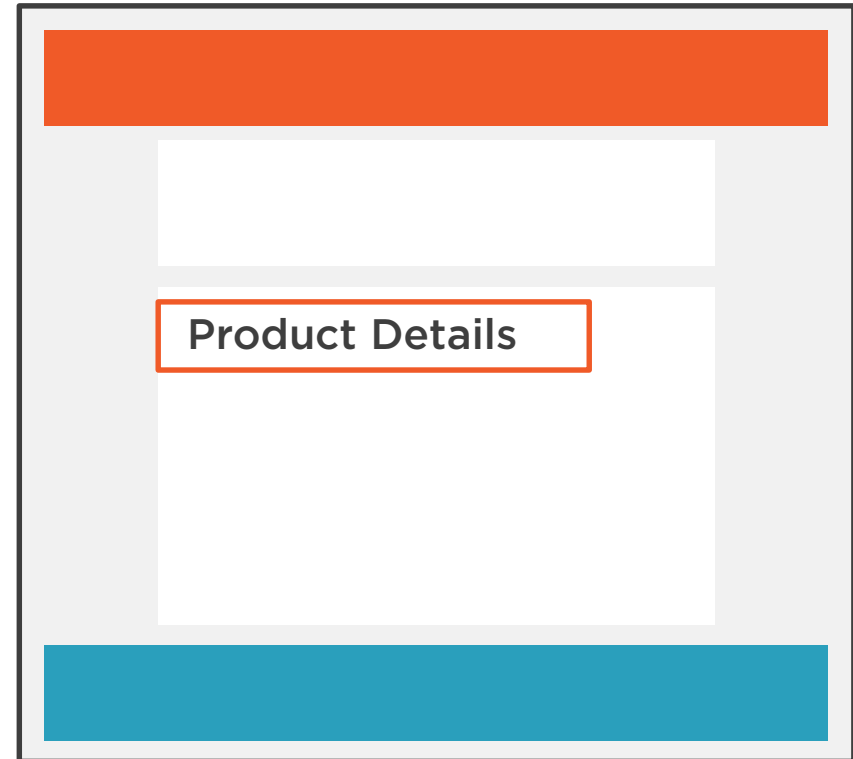
Using Templates

index.xhtml
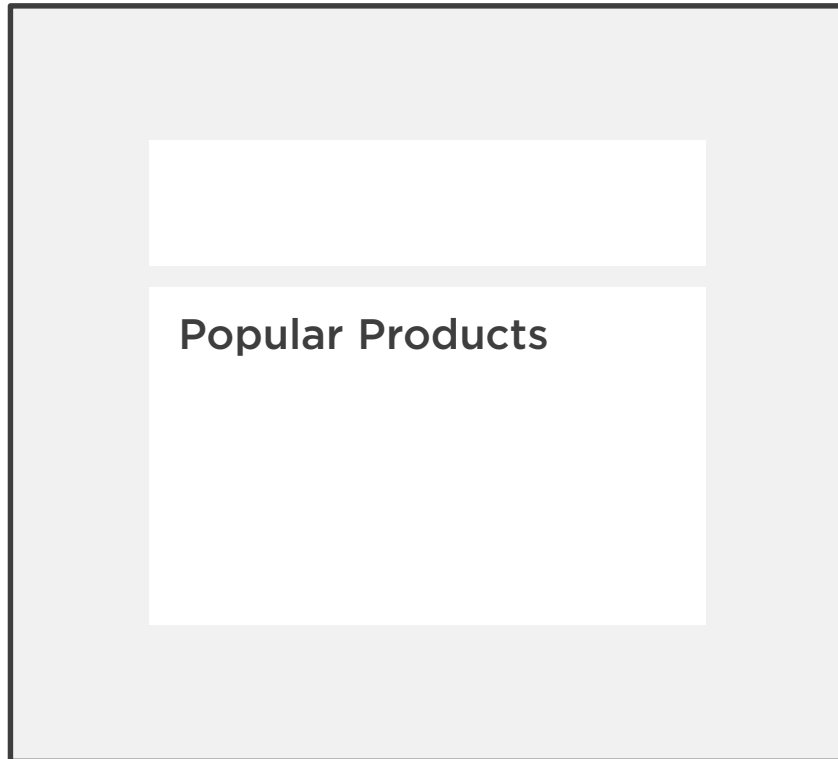
page-template.xhtml

Popular Products
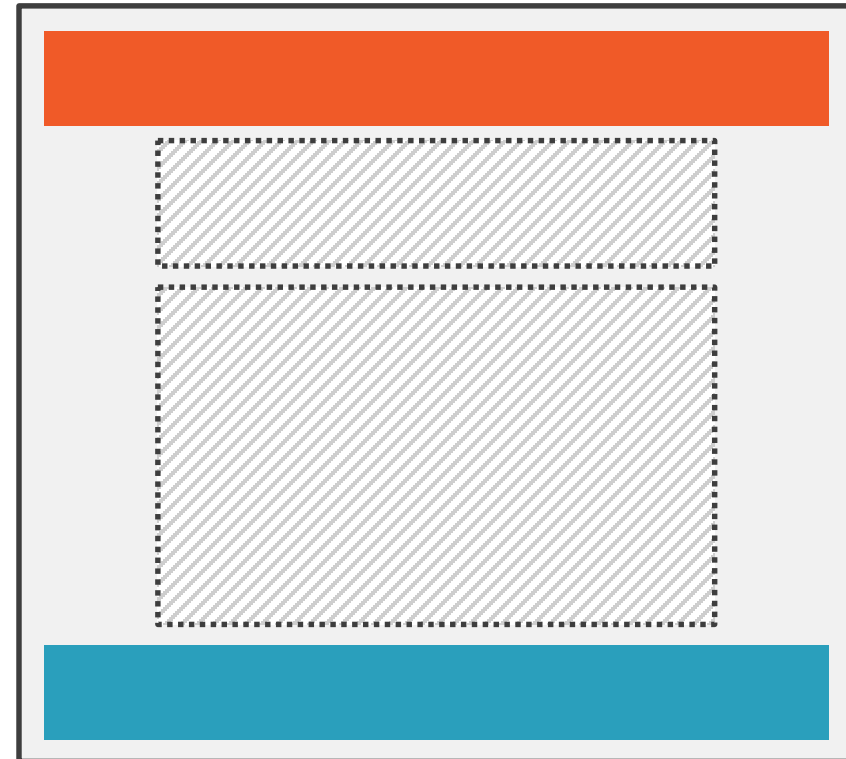
Using Templates

Content + **Template** = **Final Page**

Popular Products

The Facelets Templating Tags

page.xhtml

```
<ui:composition
    template="templ.xhtml">


<ui:define name="content">
  <h1>Popular Products</h1>
</ui:define>



</ui:composition>
```

templ.xhtml

```
<html>



<ui:insert
    name="content"/>



</html>
```
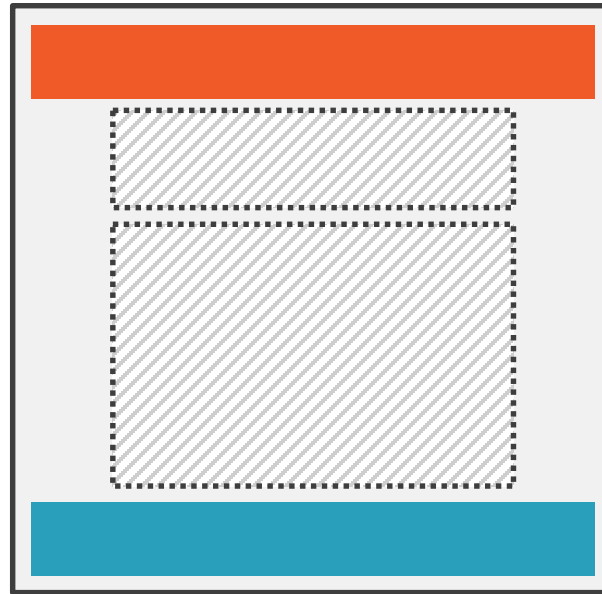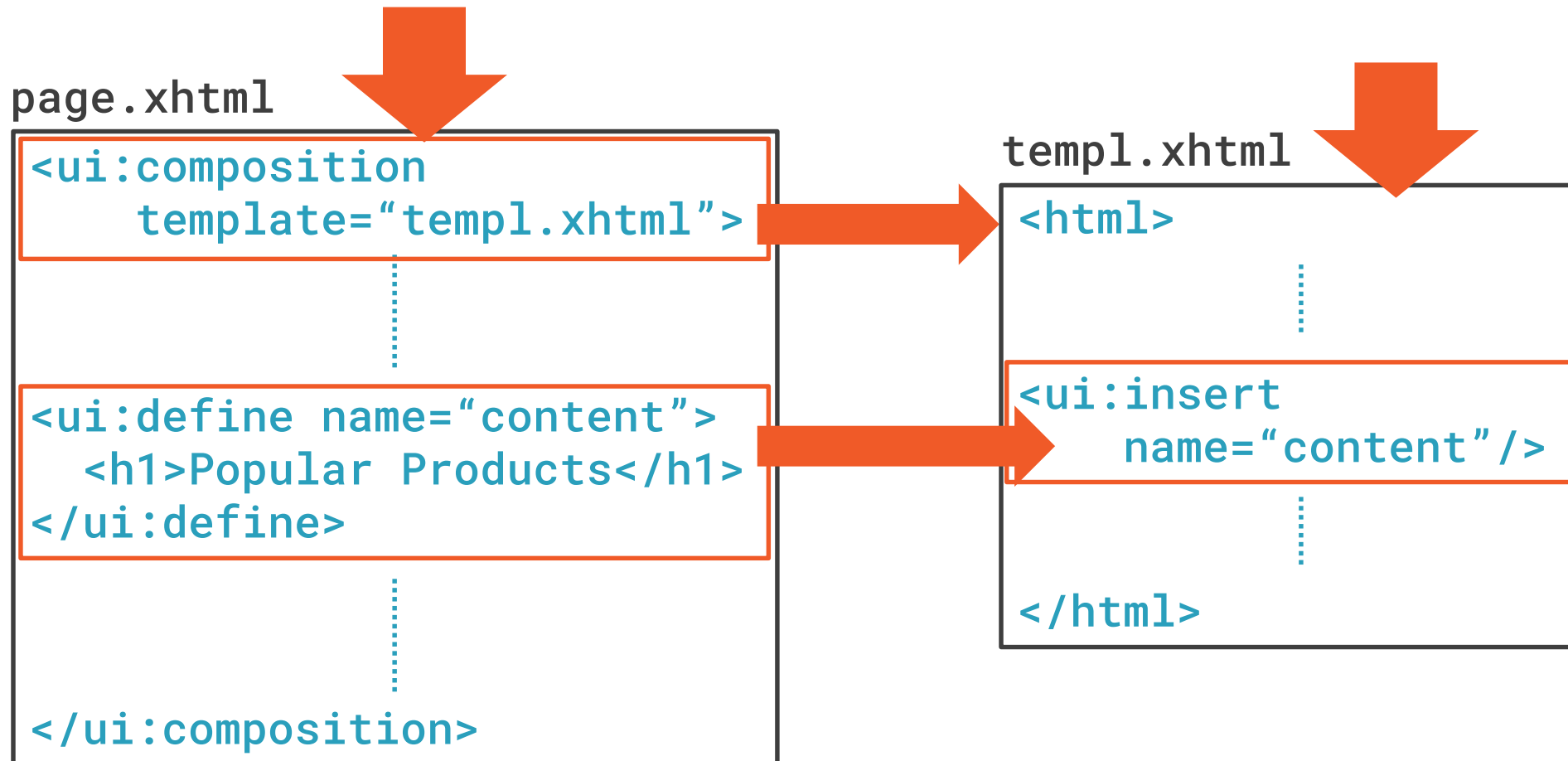
Demo

Using the Facelets Templating System

- Create the first pages of the demo application

- Deploy and run it

Applying a Template to Part of a Page

The `ui:decorate` Tag

The decorate tag is identical to the composition tag, except that `ui:decorate`, unlike `ui:composition`, does not disregard all content outside of the tag.

Facelets Templating Summary

- **ui:include**
  - Inserts the content of another Facelets XHTML file
- **ui:composition**
  - Defines a page that uses a template
- **ui:insert**
  - Defines the point inside a template where content is to be inserted
- **ui:define**
  - Defines content to be inserted into the template
- **ui:param**
  - Passes a parameter to an included file or template
- **ui:decorate**
  - Applies a template to part of a page

Managing Resource Files

Packaging Resources Separately

musicshop.war

```
resources
  musicshop
    css
      default.css
    images
      microphone-120x120.jpg
      microphone-400x400.jpg
      ...

WEB-INF
  faces-config.xml
  web.xml

index.xhtml
...
```

resources.jar

```
META-INF
  resources
    musicshop
      css
        default.css
      images
        microphone-120x120.jpg
        microphone-400x400.jpg
        ...
```

Packaging Resources Separately

musicshop.war

```
WEB-INF
   lib
      resources.jar
   faces-config.xml
   web.xml

index.xhtml
...
```
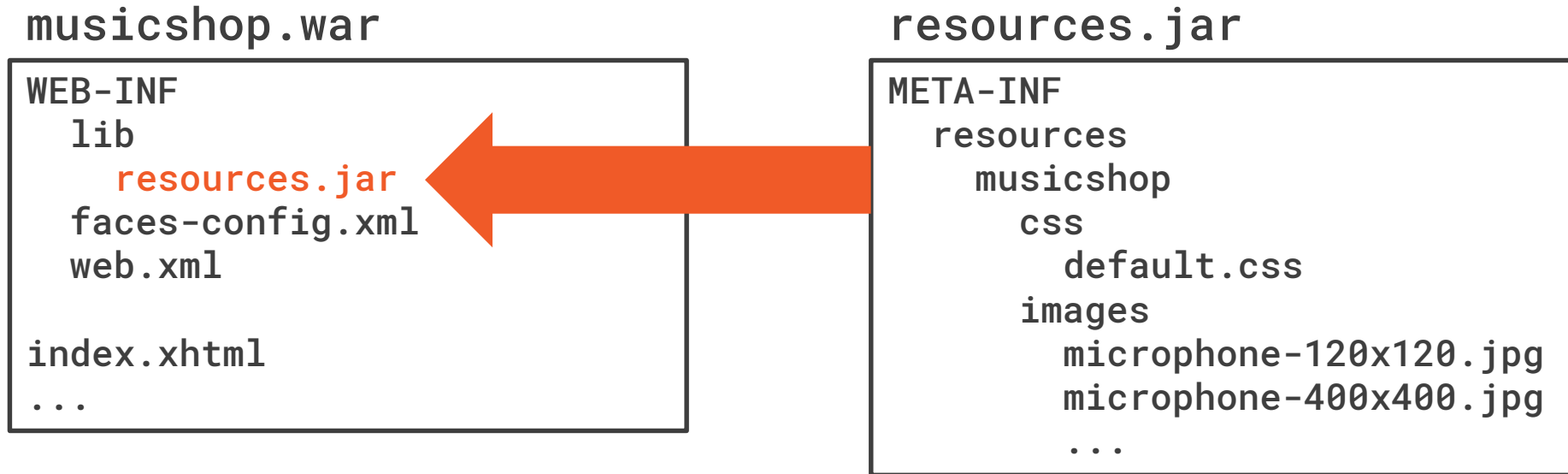
resources.jar

```
META-INF
   resources
      musicshop
         css
            default.css
         images
            microphone-120x120.jpg
            microphone-400x400.jpg
            ...
```

Resource Library Contracts

Popular Products

Popular Products

Summary

JSF Standard Tag Libraries

Facelets Templating System
- Reusing Content and Layout

Managing Resources
- Resource Libraries
- Resource Library Contracts

Coming Up
- Managed Beans
- Expression Language