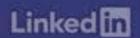
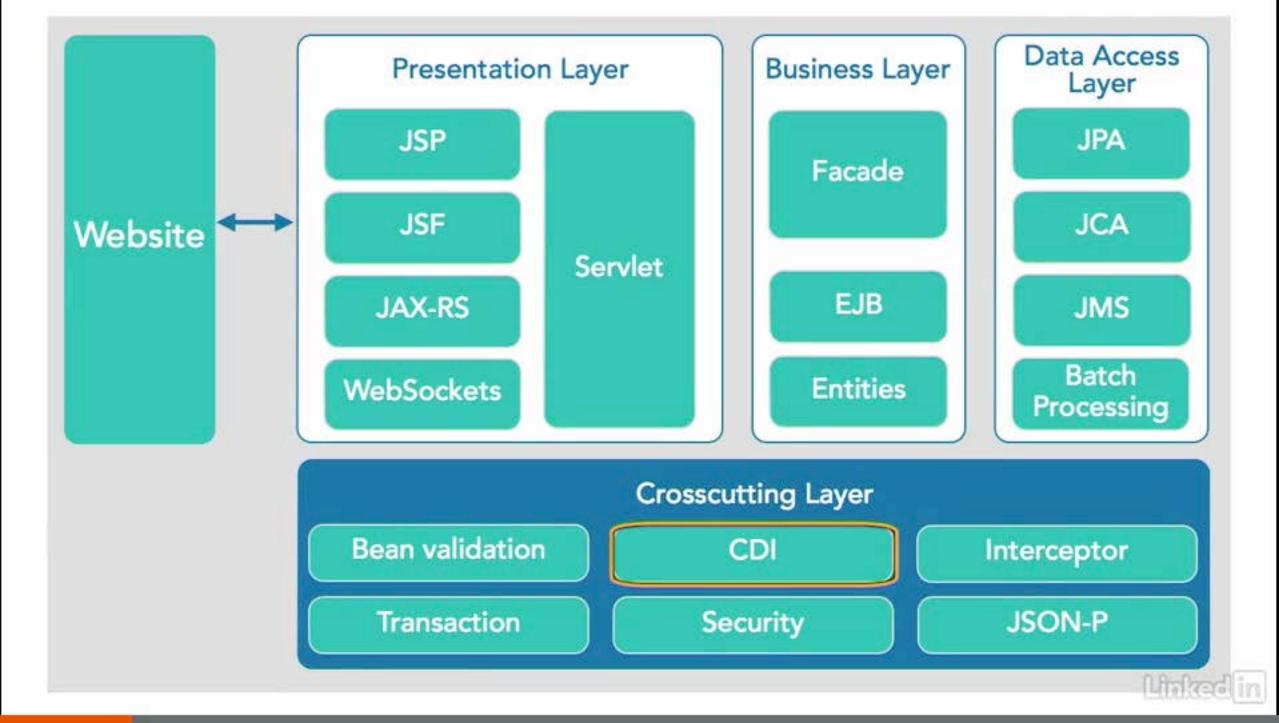
CDI Introduction

- Glues layers together
- Range of powerful services
- Scopes, injectability, extensibility



Typical Application Architecture



Context and Dependency Injection

- All objects are injectable.
- JSR299
- EJBs
- JNDI resources
- Persistence units and persistence contexts

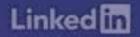


Context and Dependency Injection

Producer methods

```
@Produces
public List<Book> availableBooks() {
    return getListOfBooksFromDatabase();
}
```

- @Inject mark injection point
- @Disposes, @Stereotype



Expression Language Beans

- Require @Named
- Referenced by using lowercase bean (class) name

```
@Named
@ViewScoped
public class Track
```

Type Safety

- Inject objects in a typesafe way
- By type, not name
- Implementation chosen at runtime
- Disambiguation by qualifiers @Qualifier

Context and Scope

Bind lifecycle and context



Context and Scope

Eight scopes

HTTP Request -> @RequestScoped

@ViewScoped, @FlowScoped

@Transaction

@RequestScoped, @SessionsScoped, @ConversationScoped,

@ApplicationScoped, @Dependent



Context and Scope

Custom scope

Extensibility

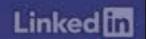
- Portable extensions SPI
- Vendor neutral
- DeltaSpike, Agorava, and Arquillian

Interceptors and Decorators

- Interpose method invocations
- Crosscutting concerns
- @Interceptor, @Decorator

Event Bus

- Very lightweight and decoupled
- Fire event and listen for event
- Event, @Observes







C O localhost:8080/cargo-tracker/admin/dashboard.xhtml





Cargo Tracker - Powered by Java EE 7

Dashboard	Book	Track	Live	Abou
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louted					
Id	Origin	Destination	Last Known Location	Status	Deadline
ABC123 ⁽¹⁾	Hong Kong	Helsinki FIHEL	New York USNYC	IN_PORT	03/15/2015 12:00 AM PDT
JKL567 ⊕	Hangzhou CNHGH	Stockholm SESTO	New York USNYC	ONBOARD_CARRIER	03/18/2015 12:00 AM PDT

Not Routed			
Id	Origin	Destination	Deadline
DEF789	Hong Kong - CNHKG	Melbourne - AUMEL @	11/18/2015 - 12:00 AM PST

Claimed		
Id	Origin	Destination
MNO456 ^⑤	New York - USNYC	Dallas - USDAL





Cargo Tracker - Powered by Java EE 7

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Id	Origin	Destination	Last Known Location	Status	Deadline
ABC12:(0)	Hong Kong CNHKG	Helsinki FIHEL	New York USNYC	IN_PORT	03/15/2015 12:00 AM PDT
JKL567 ①	Hangzhou CNHGH	Stockholm SESTO	New York USNYC	ONBOARD_CARRIER	03/18/2015 12:00 AM PDT

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DEF789 @	Hong Kong - CNHKG	Melbourne - AUMEL ☑	11/18/2015 - 12:00 AM PST

Claimed		
Id	Origin	Destination
MNO456 🗊	New York - USNYC	Dallas - USDAL

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Cargo Tracker - Powered by Java EE 7

Dashboard Book Track Live About

Routing Details of cargo ABC123

Origin: Hong Kong CNHKG

Helsinki FIHEL Destination:

Arrival deadline: 03/15/2015 12:00 AM PDT

Voyage	Load	at	Unload	at
01005	Hong Kong	03/02/2015	New York	03/05/2015
	CNHKG	12:00 AM PST	USNYC	12:00 AM PST
0200T	New York	03/06/2015	Dallas	03/08/2015
	USNYC	12:00 AM PST	USDAL	12:00 AM PST
0300A	Dallas	03/09/2015	Helsinki	03/12/2015
	USDAL	12:00 AM PDT	FIHEL	12:00 AM PDT



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Cargo Tracker - Powered by Java EE 7

Dashboard Book Track Live About

Routing Details of cargo ABC123

Origin: Hong Kong CNHKG

Destination: Helsinki FIHEL

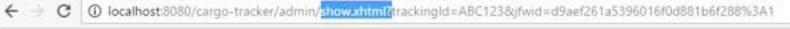
Arrival deadline: 03/15/2015 12:00 AM PDT

Voyage	Load	at	Unload	at
01005	Hong Kong	03/02/2015	New York	03/05/2015
	CNHKG	12:00 AM PST	USNYC	12:00 AM PST
0200T	New York	03/06/2015	Dallas	03/08/2015
	USNYC	12:00 AM PST	USDAL	12:00 AM PST
0300A	Dallas	03/09/2015	Helsinki	03/12/2015
	USDAL	12:00 AM PDT	FIHEL	12:00 AM PDT





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Cargo Tracker - Powered by Java EE 7

Dashboard Book Track Live About

Routing Details of cargo ABC123

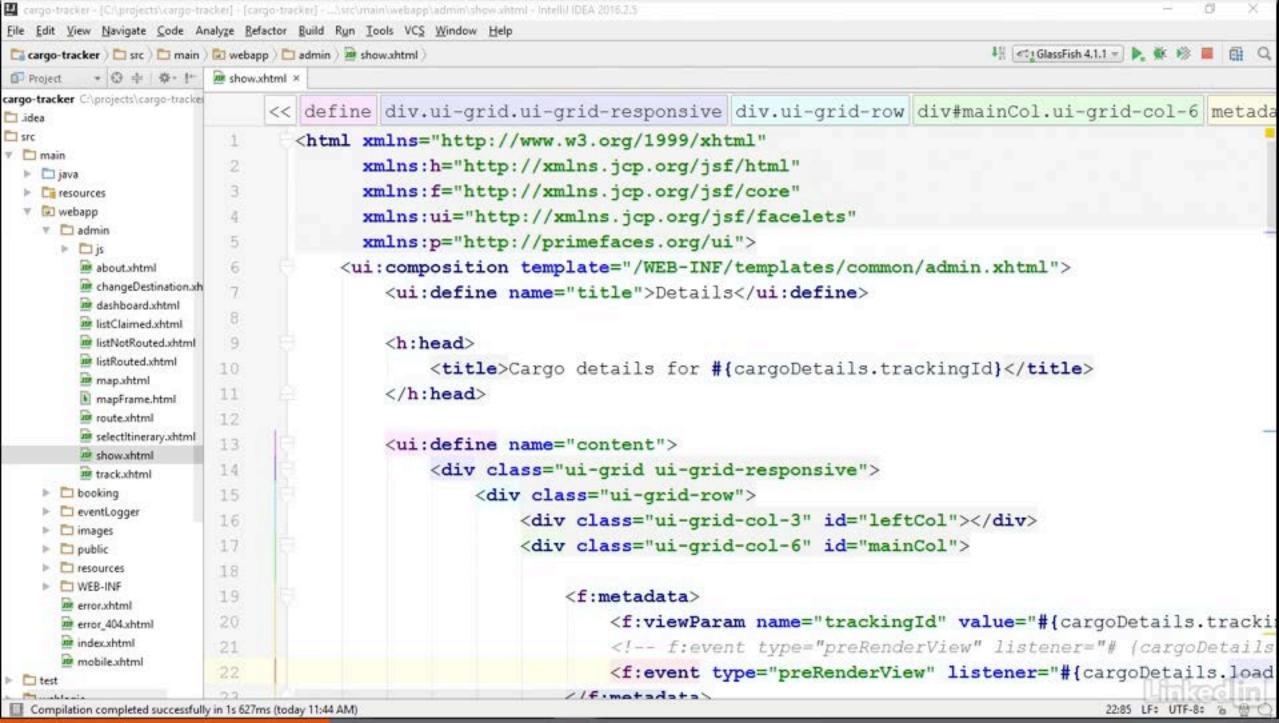
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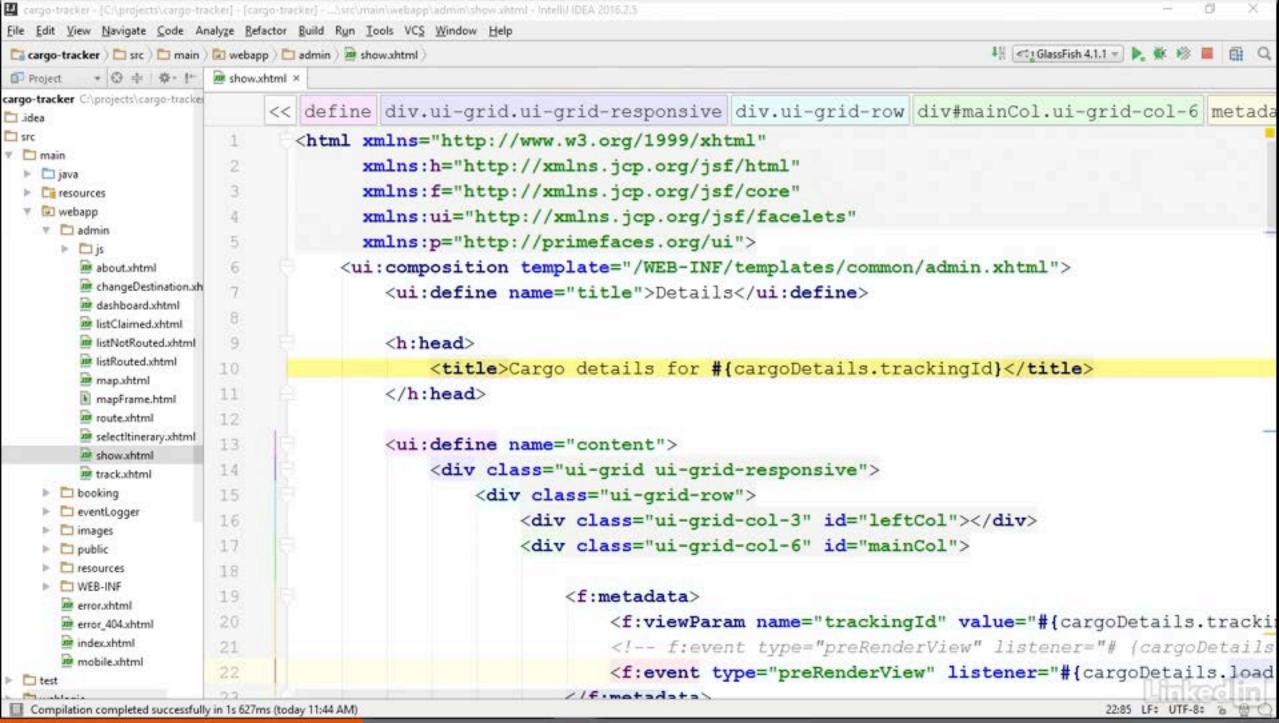
Helsinki FIHEL Destination:

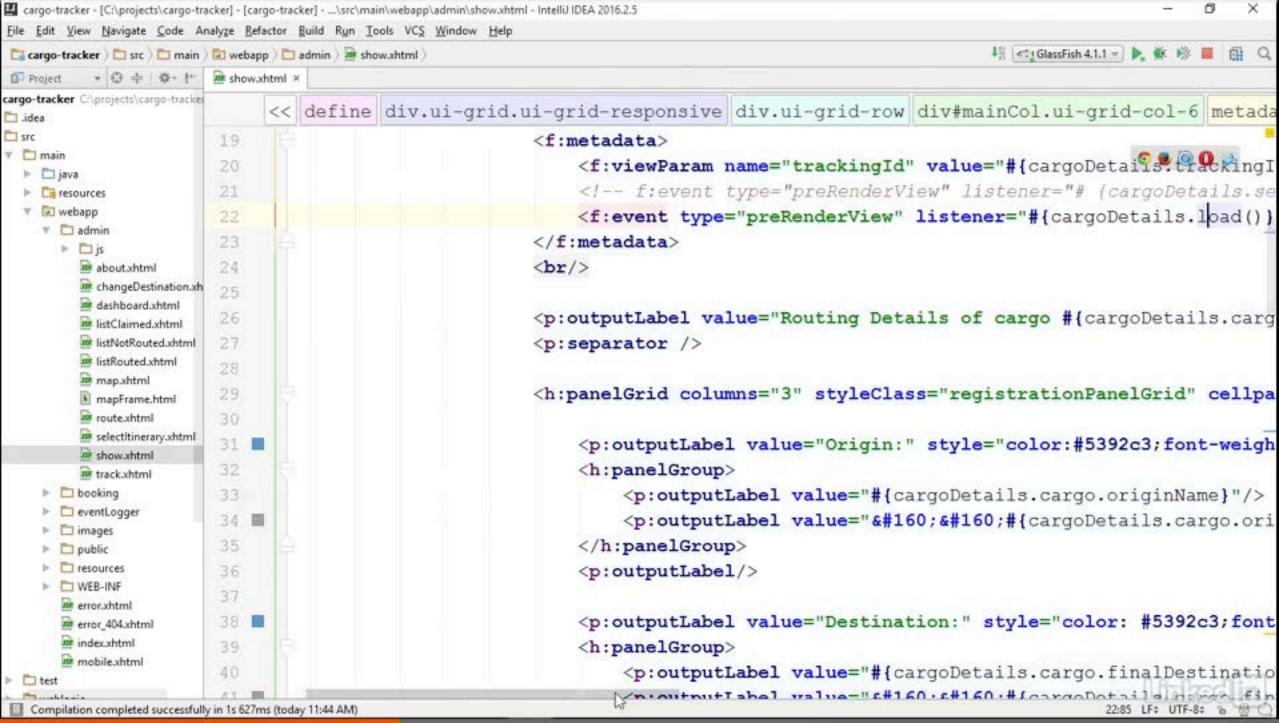
Arrival deadline: 03/15/2015 12:00 AM PDT

Voyage	Load	at	Unload	at
01005	Hong Kong CNHKG	03/02/2015 12:00 AM PST	New York	03/05/2015 12:00 AM PST
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	USNYC	12:00 AM PST	USDAL	12:00 AM PST
0300A	Dallas	03/09/2015	Helsinki	03/12/2015
	USDAL	12:00 AM PDT	FIHEL	12:00 AM PDT





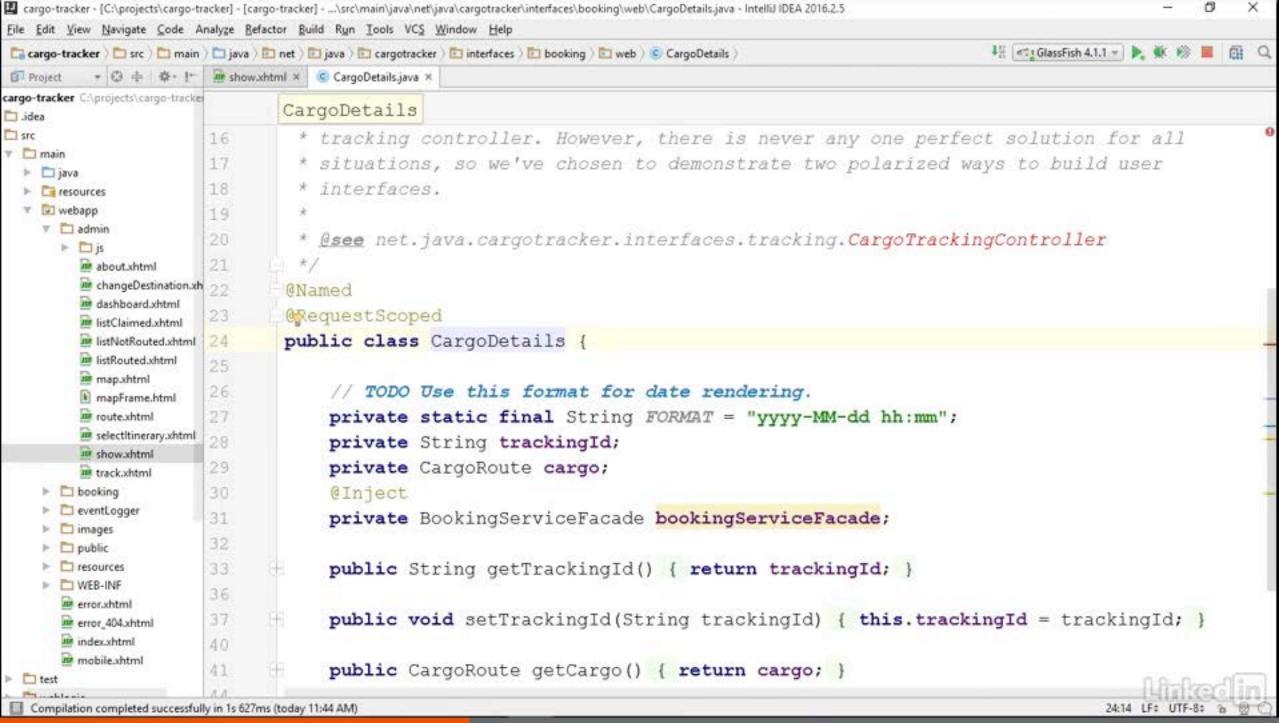


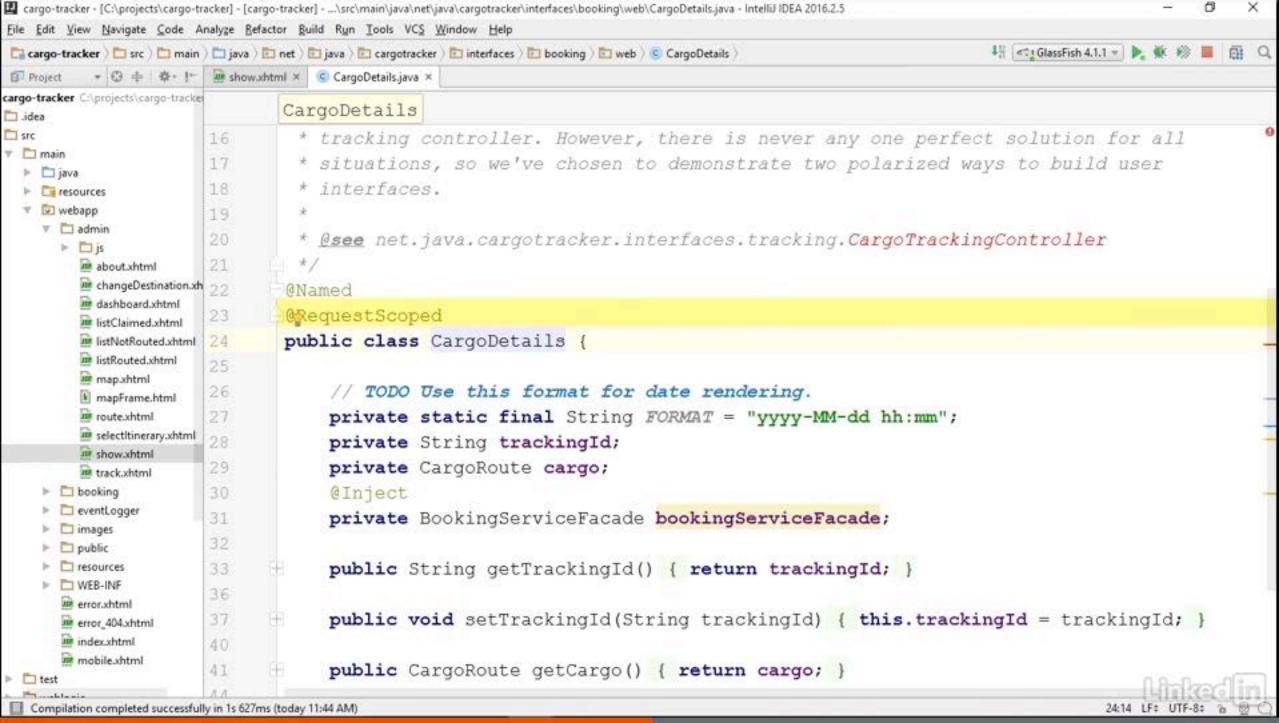


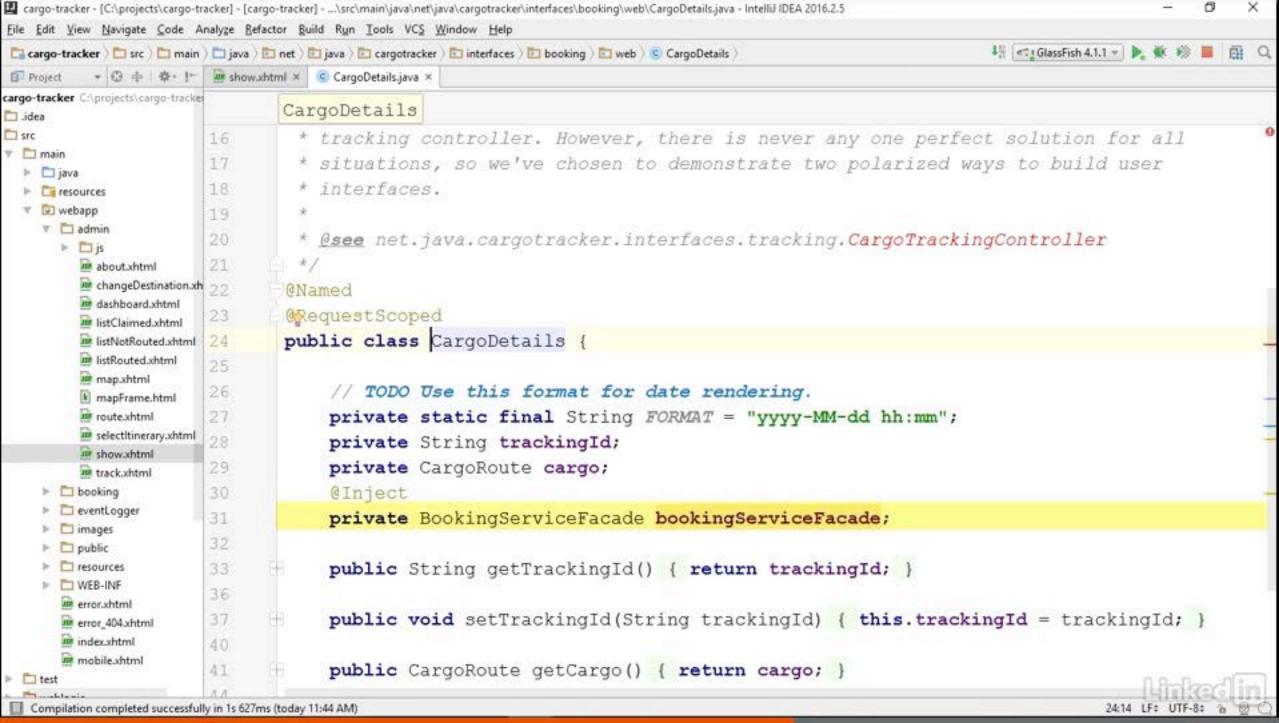
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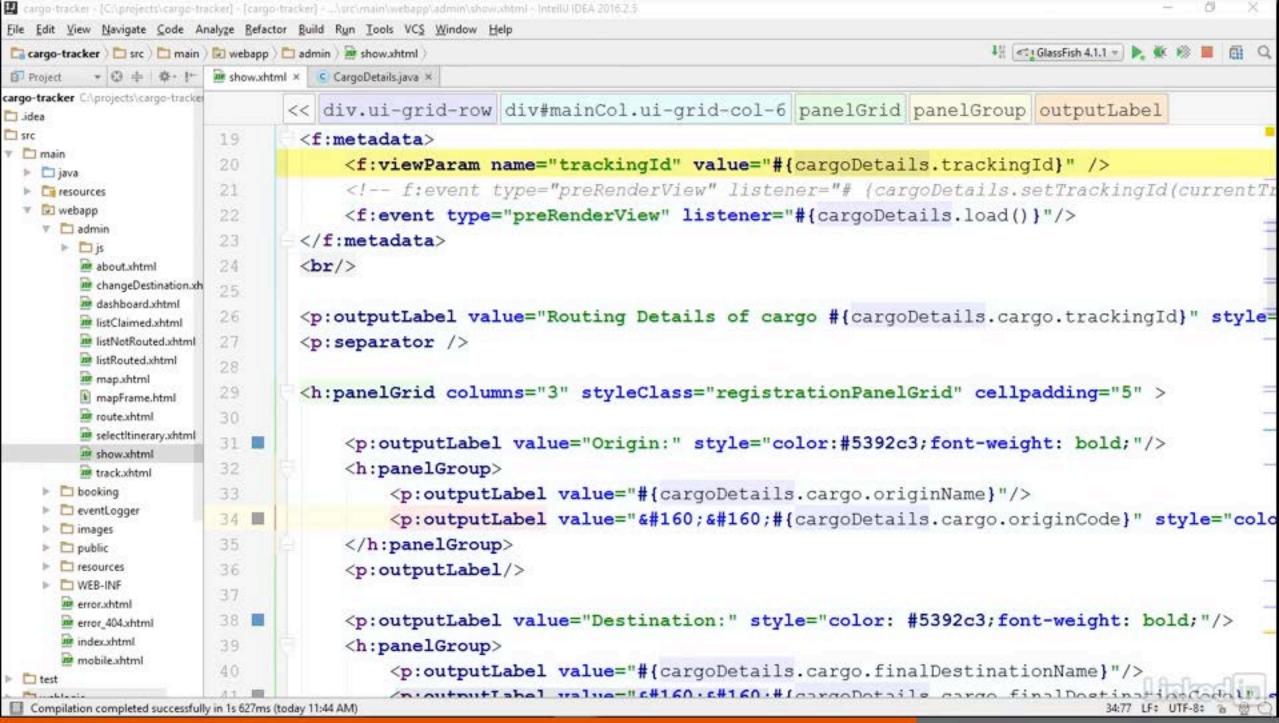
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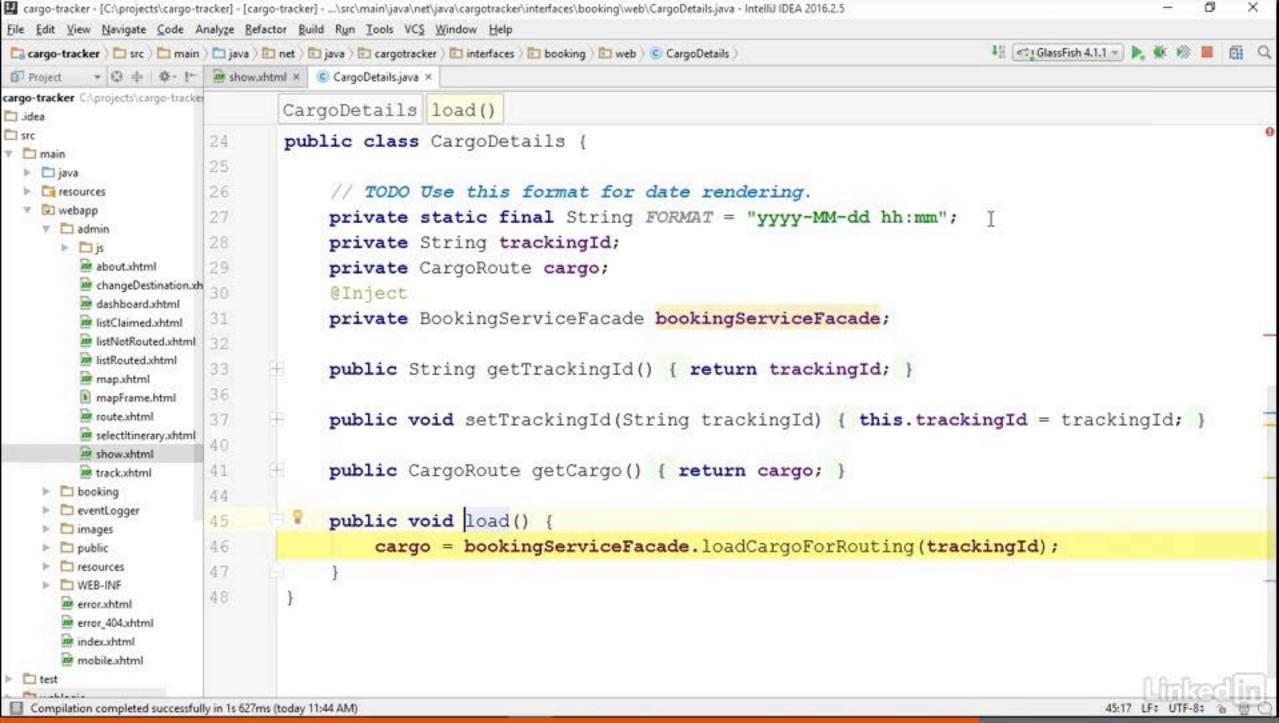


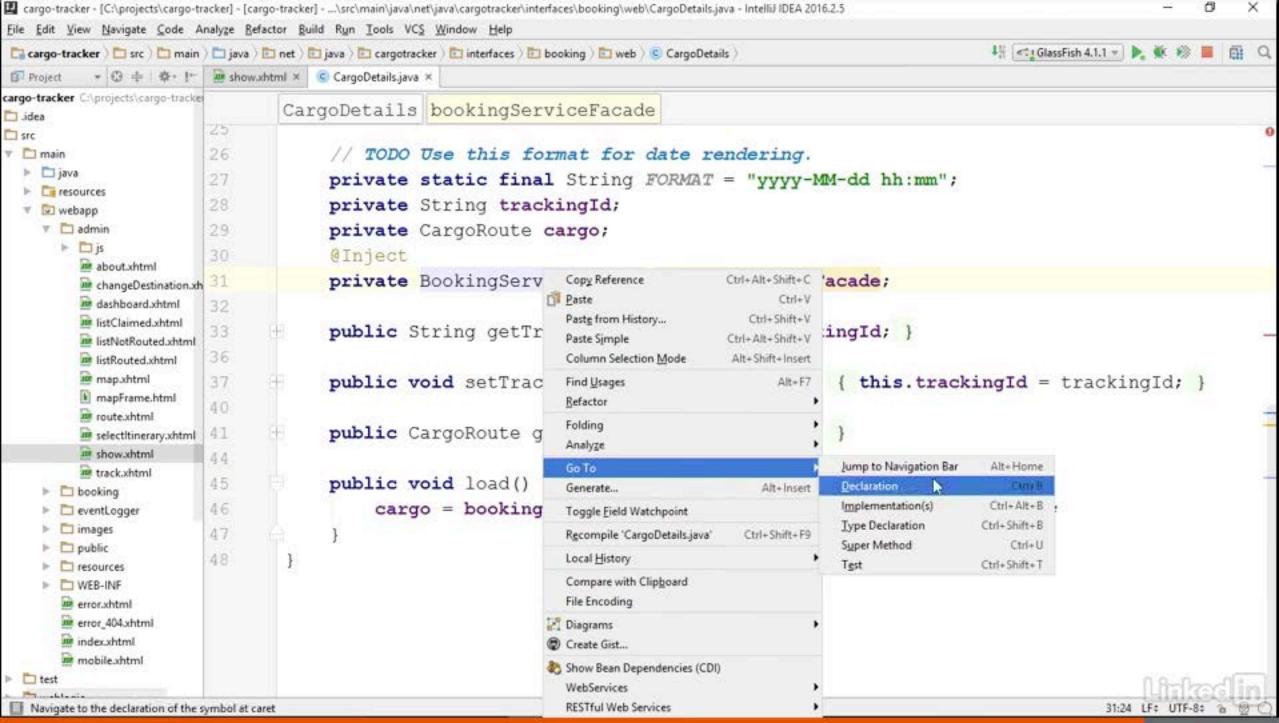


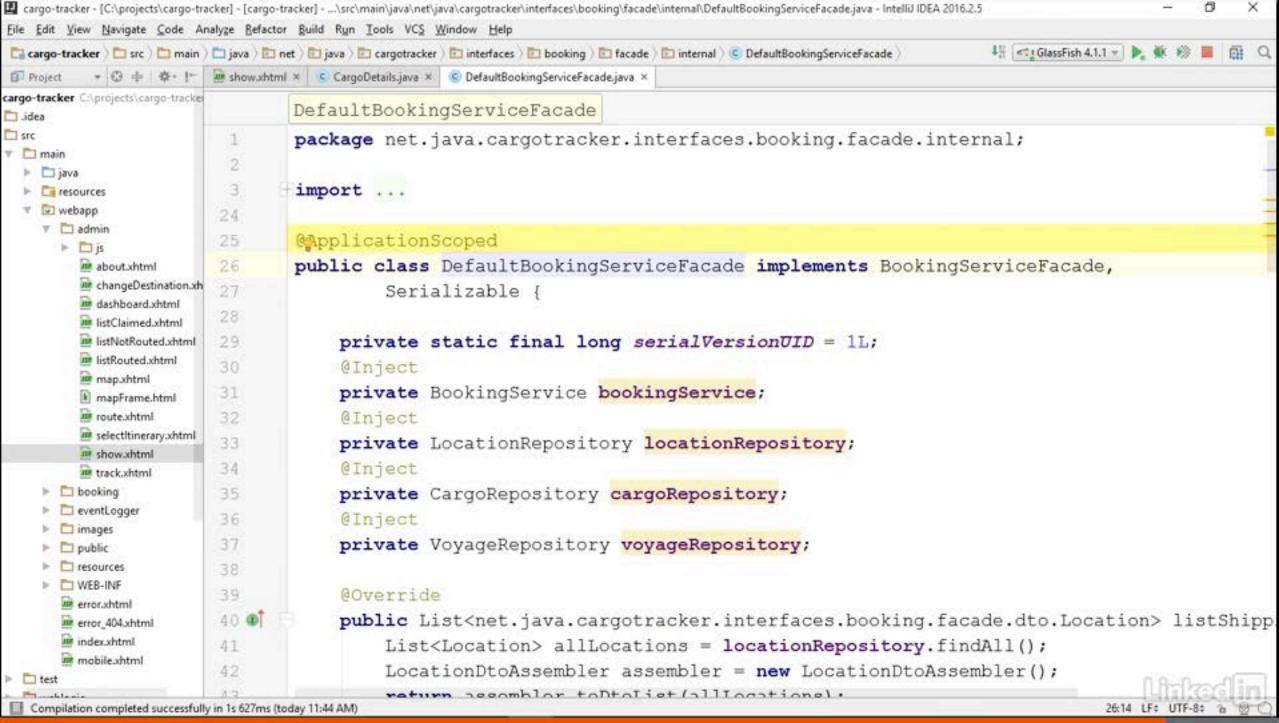


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Challenge: CDI

Create a list view page

Add a view that displays all of the cargo in a list on one page

Hint

Visit the primefaces.org website for example code for the JSF frontend and backend. Think about the conversation we had about named beans and producer methods.

http://www.primefaces.org



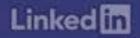
Challenge: CDI

Create a list view page

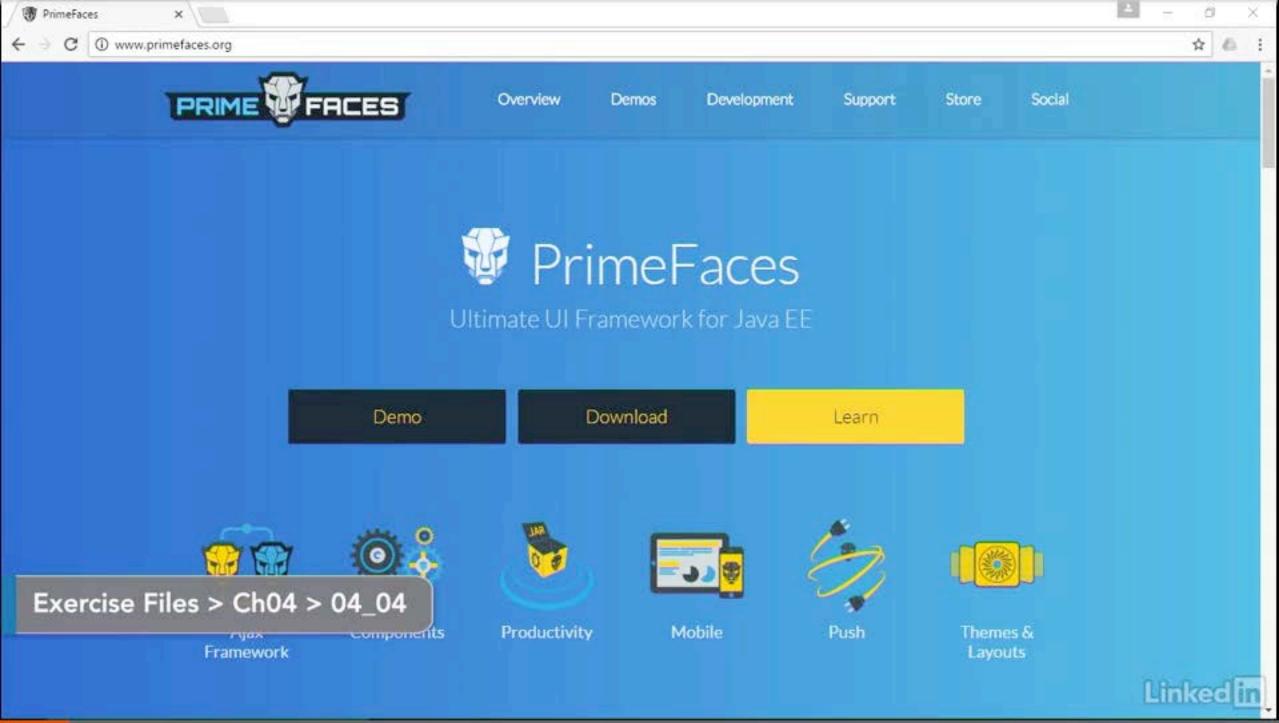
Add a view that displays all of the cargo in a list on one page

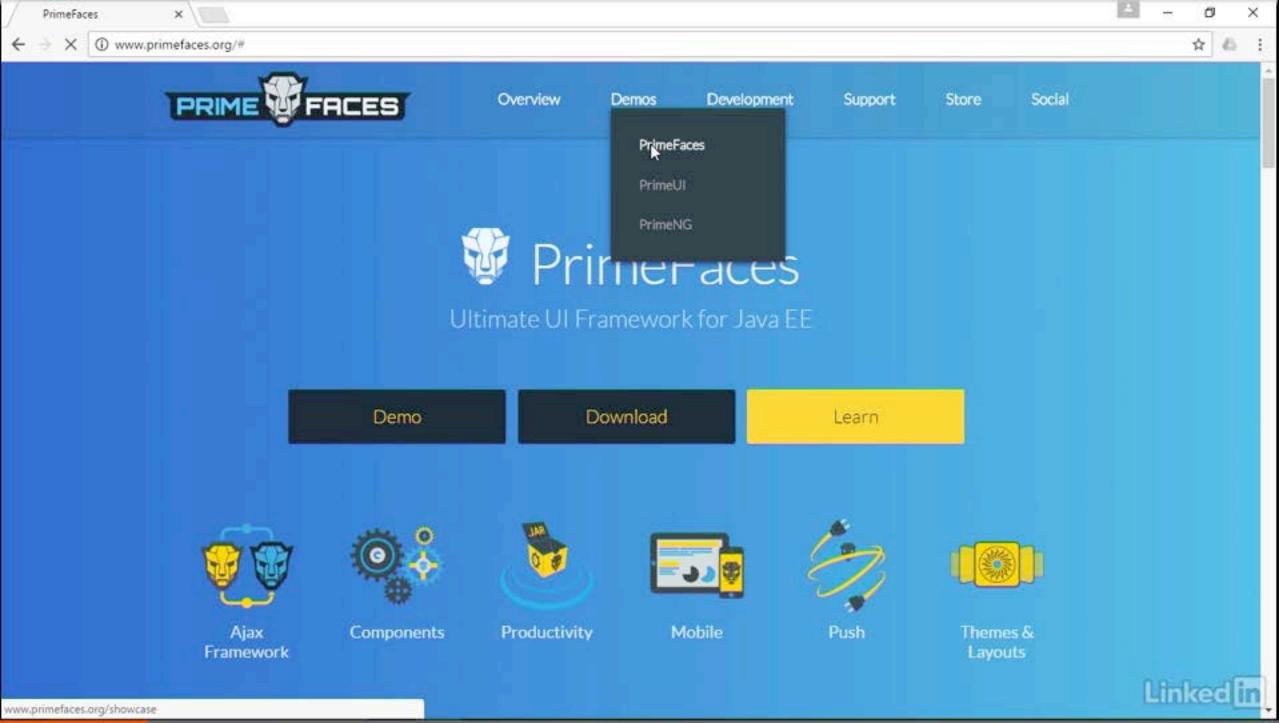
Hint

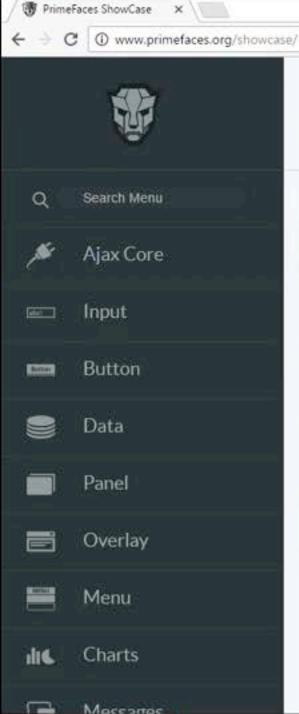
Visit the primefaces.org website for example code for the JSF frontend and backend. Think about the conversation we had about named beans and producer methods.























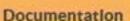


Ready For PrimeTime

PrimeFaces is a popular open source framework for JavaServer Faces featuring over 100 components, touch optimized mobilekit, push framework, client side validation, theme engine and more.



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AJAX FRAMEWORK

Without Javascript Declarative Updates Partial Page Rendering Extensions





PRODUCTIVITY

Simple Effective Powerful Lightweight



MOBILE

Mobile Optimized RenderKit Mobile Components Cross Platform Same Backend



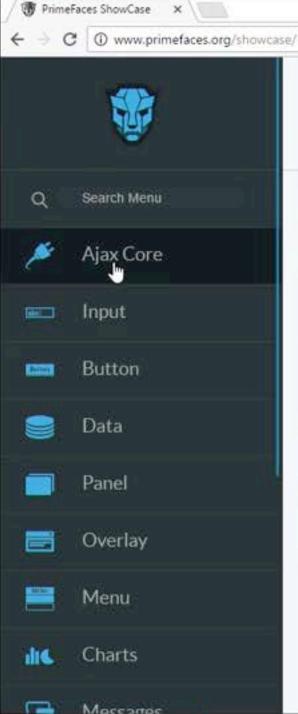
COMPONENTS

PUSH

Powered by Atmosphere Websockets Fallback Transports Portable Scalable



THEMES



















PFExtensions

PFMockOSX.

Ready For PrimeTime

PrimeFaces is a popular open source framework for JavaServer Faces featuring over 100 components, touch optimized mobilekit, push framework, client side validation, theme engine and more.





Without Javascript Declarative Updates Partial Page Rendering Extensions



COMPONENTS Over 100 Flexible and Easy to Use Built-in Ajax HTML5 Support

Accessible



PRODUCTIVITY Simple Effective Powerful Lightweight



MOBILE

Mobile Optimized RenderKit Mobile Components Cross Platform Same Backend

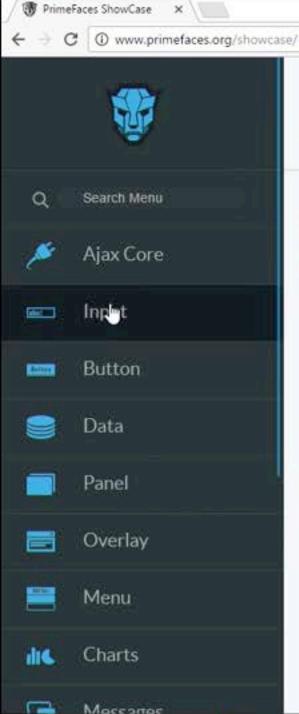


PUSH

Powered by Atmosphere Websockets Fallback Transports Portable Scalable



THEMES















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PFMockOSX

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Documentation



MOBILE

AJAX FRAMEWORK

Without Javascript

Declarative Updates

Partial Page Rendering

Extensions

Mobile Optimized RenderKit Mobile Components Cross Platform Same Backend



COMPONENTS

Over 100
Flexible and Easy to Use
Built-in Ajax
HTML5 Support
Accessible



PRODUCTIVITY

Simple Effective Powerful Lightweight



PUSH

Powered by Atmosphere Websockets Fallback Transports Portable Scalable



THEMES



① www.primefaces.org/showcase/

InputTextarea

BooleanCheckbox

CheckboxMenu

InputNumber

ManyMenu

OneRadio

Spinner

· Switch

MultiSelectListbox

• Editor

Listbox











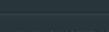












Search Menu



Input

- AutoComple in
- BooleanButton
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- OneMenu
- Input Text
- InputMask
- ManyButton
- ManyCheckbox
- OneButton
- Signature
- · Slider
- · Password
- Rating
- Keyboard

Ready For PrimeTime

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Documentation





AJAX FRAMEWORK

Without Javascript Declarative Updates Partial Page Rendering Extensions



MOBILE

Mobile Optimized RenderKit Mobile Components Cross Platform Same Backend



COMPONENTS

Over 100 Flexible and Easy to Use Built-in Ajax HTML5 Support Accessible



PRODUCTIVITY

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PUSH

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THEMES

